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MICHIGAN HEALTH STATISTICS

1991

Office of the State Registrar and Center for Health Statistics

Michigan Department of Public Health
Lansing, Michigan June 1993

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Michigan Department of Public Health
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INTRODUCTION

The 1991 edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1991. Data relative to population, births, deaths, fetal deaths, marriages, divorces and communicable diseases are included. Although most of the data in this report pertain to events occurring in 1991, data for prior years have been included to illustrate trends. Most of the tabulations refer to Michigan residents. Some events, however, such as marriages and divorces are tabulated with respect to where the event occurred rather than the residence of the party or parties involved.

As a certain number of Michigan residents either deliver babies or die out of state each year, it is necessary to include data obtained from the certificates of other states in any tabulations pertaining to Michigan residents. This report includes all such out-of-state certificates received prior to April 30, 1992, and all in-state certificates and records received prior to March 15, 1992. Although a few additional records for the calendar year 1991 were received after these filing dates, their exclusion from this report is statistically insignificant.

This report is composed of county and state vital event profiles as well as the following sections and appendices:

1. County and State Health Statistics Profiles
2. Natality Section
3. Mortality Section
4. Marriage and Divorce Section
5. Reference Appendix

Comments or suggestions concerning the content and format of this report are always welcome. Any additional needs for data or analyses may be directed to the Office. The Office will make every attempt to comply with requests for data within the limitations of staff and resources.

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TECHNICAL NOTES, DEFINITIONS, RATES AND RATIOS

DEFINITIONS

ANCESTRY - National origin for mother, father or decedent is as stated on certificate. First collected in 1989. If more than one ancestry is reported, the first listed is used. If "American" is given with any other ancestry, the other ancestry is used.

BIRTH WEIGHT - Weight of fetus or infant at time of delivery.

FETAL DEATH - Death prior to the complete expulsion or extraction from its mother of a product of conception, having passed through at least the 20th week of gestation or weighing at least 400 grams; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. (Note: This does not include induced terminations.)

FIRST BIRTH - A live birth where the maternal medical history indicates there were no prior live births to the mother.

GESTATIONAL PERIOD - Number of completed weeks elapsed between the first day of the last menstrual period and the date of delivery.

HEBDOMADAL DEATH - Death occurring to an individual less than 7 days of age.

INFANT DEATH - Death occurring to an individual less than 1 year of age.

INFANT DEATH/LIVE BIRTH MATCHED FILE COMPLETENESS RATIO - The number of matched records for infant deaths and live births for deceased Michigan resident live births divided by the number of Michigan resident or presumed resident live births known to be deceased x 100.

INTERPREGNANCY TIME PERIOD - Birth date minus date of last termination, whether a live birth or fetal death, in months. Time periods of zero length are dropped to exclude 2nd or higher births of multiple deliveries.

KESSNER INDEX:

Adequate prenatal care is defined as care which began within the first trimester and which included an average of at least one or two additional prenatal visits per month of gestation, depending on the length of gestation.

Intermediate prenatal care is defined as care which began during the second trimester of the pregnancy with correspondingly fewer visits, or which began during the first trimester but with fewer visits than would be appropriate for the length of gestation.

Inadequate prenatal care is when no care was received or if care began during the third trimester. It is also inadequate if care began during the first or second trimester but less than five visits occurred, when the length of gestation was 34 weeks or more. When the length of gestation was less than 34 weeks, care is defined as inadequate when care began during the first or second trimester but a number of visits less than four occurred, that number depending on the actual weeks of gestation.

LEADING CAUSES OF DEATH - Deaths are grouped into 72 categories dependent upon the underlying cause of death. Ranks are assigned by organizing these categories according to the number of deaths in each category from most frequent to least.

LIFE EXPECTANCY - A hypothetical calculation of the average age at death for a cohort of persons subject to the age-specific mortality rates observed over a given time period.

LIFE TABLE VALUES:

nqx = The proportion of persons in the cohort alive at the beginning of an age interval (x) who will die before reaching the end of that age interval (x+n).

lx = The number of persons living at the beginning of an age interval (x) out of an original cohort of 100,000.

ndx = The number of persons who would die during an age interval (x to x+n) out of an original cohort of 100,000.

nLx = The number of person-years that would be lived within an indicated age interval (x to x+n) out of an original cohort of 100,000 alive for all or part of the interval.

Tx = The number of person-years that would be lived after the beginning of an age interval (x) by an original cohort of 100,000 until all are assumed to have died.

ex = The average remaining lifetime (in years) for an individual person who survives to the beginning of an indicated age interval (x).

LIVE BIRTH - A live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Effective on November 9, 1981, the definition of a live birth is established in administrative rule number 325.3201 as follows:

> "*Live birth*" means the complete expulsion or extraction from a pregnant woman of a product of human conception which, after such expulsion or extraction, shows any evidence of life, whether or not the umbilical cord has been cut or the placenta is attached.

LIVE-BIRTH ORDER - Order number is equal to number of previous live births plus current birth.

LOW-WEIGHT BIRTH - Birth in 1984 or later wherein the birth weight is less than 2,500 grams (approximately 5 lbs., 8 oz.) or birth before 1984 wherein the birth weight is 2,500 grams or less.

MATERNAL DEATHS - Those deaths wherein the physician has designated a maternal condition as the underlying cause of death (9th Revision ICD codes 630-676).

MEAN - The average of a set of values, equal to the sum of the values divided by the number of values.

MEDIAN - The central value of a distribution of values wherein the same percentage of observations are above this point as are below.

MINOR CIVIL DIVISION - City, village, or township.

NEONATAL DEATH - Death occurring to an individual less than 28 days of age.

OCCURRENCE - Place where the event actually occurred.

PERINATAL DEATH - Fetal death and death to an individual less than 7 days of age.

POSTNEONATAL DEATH - Death occurring to an individual 28-364 days of age.

PROBABILITY OF EVENTUALLY DYING FROM A GIVEN CAUSE OF DEATH - The chance of death due to a given cause rather than some competitive cause over the course of a lifetime based on current mortality data and life expectancy techniques.

RACE - Race for mother, father, or decedent is as stated on certificate. Race of child is determined from the race of the parents.

REMAINING YEARS OF LIFE - A hypothetical calculation of the average number of years a cohort of persons will live given that they have reached a specific age and assuming they are subject to the age-specific mortality rates observed over a given time period.

RESIDENCE - Usual place of residence for the person to whom the event occurred. For births and fetal deaths, residence is defined as the mother's usual place of residence.

TOTAL BIRTHS - Live births and fetal deaths.

UNDERLYING CAUSE OF DEATH - That condition giving rise to the chain of events leading to death.

VERY LOW-WEIGHT BIRTH - Birth in 1984 or later wherein the birth weight is less than 1,500 grams (approximately 3 lbs., 4 oz.) or birth before 1984 wherein the birth weight is 1,500 grams or less.

YEARS OF POTENTIAL LIFE LOST - The number of years between the age at death and 65 years of age for individuals dying before age 65.

RATES AND RATIOS

AGE-ADJUSTED DEATH RATE - A summary rate of death that is developed using a standard population distribution to improve the comparability of rates for areas or population subgroups with differing age distributions. When calculated by the direct method, as in this report, age-specific death rates for a geographic area or population subgroup are multiplied by the standard population by specific age and the products summed and divided by the total standard population. Age-adjusted death rates represent the mortality experience that would have occurred in a standard population had the age-specific rates of the area or population subgroup been experienced by the standard population. These rates are presented as per 100,000 population.

AGE-SPECIFIC BIRTH RATE - Number of resident live births to women of a specific age divided by total resident female population of specific age x 1,000.

AGE-SPECIFIC DEATH RATE - Number of resident deaths in specific age group divided by total resident population in specific age group x 100,000.

AGE-SPECIFIC DEATH RATE BY CAUSE OF DEATH - Number of resident deaths in specific age group and from a specific cause divided by total resident population in specific age group x 100,000.

AGE-SPECIFIC MARRIAGE RATE - Number of occurrent marriages in specific age group by sex divided by total resident population in specific age and sex group x 1,000.

CAUSE-SPECIFIC RATE - Number of resident deaths due to a specific cause divided by total resident population x 100,000.

CONGENITAL ANOMALY RATE - Number of resident live births with a congenital malformation reported divided by the total number of resident live births x 10,000.

COMMUNICABLE DISEASE CASE RATE - Number of reported cases (specific communicable diseases) divided by total resident population x 100,000.

CRUDE BIRTH RATE - Number of resident live births divided by total resident population x 1,000.

CRUDE DEATH RATE - Number of resident deaths divided by total resident population x 1,000.

DIVORCE RATE - Number of persons with occurrent divorces and annulments divided by total resident population x 1,000.

FERTILITY RATE - Number of resident live births divided by total resident female population ages 15-44 x 1,000.

FETAL DEATH RATE - Number of resident fetal deaths divided by total resident live births and resident fetal deaths x 1,000.

FETAL DEATH RATIO - Number of resident fetal deaths divided by total resident live births x 1,000.

FIRST MARRIAGE RATE - Number of occurrent marriages to persons not previously married by sex divided by total resident population by sex x 1,000.

INFANT MORTALITY RATE - Number of resident infant deaths divided by total resident live births x 1,000.

LOW-WEIGHT BIRTH RATIO - Number of resident low-weight births divided by total resident live births x 1,000.

MARRIAGE RATE - Number of resident persons married in an area divided by total resident population x 1,000.

MATERNAL DEATH RATE - Number of resident maternal deaths divided by total resident live births x 10,000.

NEONATAL DEATH RATE - Number of resident neonatal deaths divided by total resident live births x 1,000.

NO PRENATAL CARE RATIO - Number of resident live births to mothers with no prenatal care divided by total resident live births x 1,000.

PERINATAL DEATH RATE - Number of perinatal deaths divided by total resident live births and resident fetal deaths x 1,000.

POSTNEONATAL DEATH RATE - Number of resident postneonatal deaths divided by total resident live births x 1,000.

RATE OF NATURAL INCREASE - (Total resident live births minus total resident deaths) divided by total resident population x 1,000.

TOTAL FERTILITY RATE - Sum of (age-specific birth rates) x (number of years in age group) for each age group from ages 10-14 through 45-49 years.

RELIABILITY OF RATES

Care should be taken in drawing specific inferences from comparisons of rates for different areas or different periods of time. Rates based on a small number of events or for a small area tend to exhibit considerable variation from time period to time period or place to place. Excessive variation in rates not only negates their utility as estimators of the probability of an event occurring but also their usefulness for comparative purposes.

Also, one should recognize the limitations of using unadjusted rates in attempting to attribute rate differences to particular factors. For example, one should not attempt to state that there was a significant difference in rates for two geographic areas for atherosclerosis without first adjusting the rates to negate the effects of differing age distributions in the two areas.

Many times there are simply not sufficient data available to adequately adjust rates for all possible confounding factors. For this reason the reader should exercise diligence and caution while attempting to draw substantive conclusions when comparing vital statistics rates.

QUALIFICATIONS AND LIMITATIONS OF DATA AND CALCULATIONS

UNDERREGISTRATION OF EVENTS

The underregistration of vital events in Michigan is considered to be a minimal problem, particularly for births and deaths. Tests of registration completeness conducted in conjunction with the 1950 Census indicate that the registration of births was 98.5 percent complete, and that death registration was even more complete. The number of certificates received too late for inclusion in annual statistical files is insignificant when examining statewide patterns.

GEOGRAPHIC ALLOCATION

The allocation of events on a residence or occurrence basis is for the most part accurate and complete. However, allocations to minor civil divisions are subject to question in some instances. In those cases where the respondent completes the residence item with a mailing address, geographic allocation is sometimes undeterminable and the record receives an unknown minor civil division code.

FETAL DEATHS

Fetal deaths in Michigan include only those conceptions that have passed through 20 weeks gestation or that weigh 400 grams or more. Prior to the introduction of a new reporting form for fetal deaths on September 30, 1978, Michigan law required only the reporting of deaths of fetuses which had passed through 20 weeks gestation. Inadequacies in determining the gestational age of the fetus may have resulted in some underreporting of fetal deaths. The change in definition has had little impact on the number of fetal deaths reported.

COMPARABILITY IN CAUSE OF DEATH STATISTICS

The reader should bear in mind two major limitations in interpreting changes in cause-of-death statistics. Changes in nomenclature and the classification scheme (International Classification of Diseases) and changes in diagnostic practices may seriously affect the comparability of such statistics over time. The classification scheme (ICD) is modified approximately once every ten years to reflect changing medical opinion and practice. The reader is most accurate when comparing cause-of-death certificates which are coded via one revision of the International Classification of Diseases and utilizing the coding practices and procedures in effect at that time.

In order to compare cause-of-death statistics from one revision to the next it is necessary to apply a comparability ratio. Such ratios are developed by comparing the number of deaths assigned to a certain condition or group of conditions under one revision to the number assigned under another revision of the ICD.

In 1979 the 9th Revision of the International Classification of Diseases, WHO, was introduced for coding causes of death and was employed in categorizing the data for 1979 to date.

LIFE EXPECTANCY

The procedure used to obtain the Michigan life table values is called the iterative method. This is a method which has been developed by Felix Moore formerly of the Department of Biostatistics, School of Public Health, University of Michigan.

For the age group 0-1 the method utilizes the algorithm developed by Greville with no iteration. For all subsequent age groups the method of Greville (Keyfitz) is used with three iterations to improve the estimate of ndx and nqx. An iteration procedure is also used for nLx for age groups 75-80 and 80-85 where the accuracy of mortality information is a factor and for obtaining the separation factor for the age group 1-4.

AGE-ADJUSTMENT PROCEDURE AND POPULATION ESTIMATION

Population data for 1970, 1980 and 1990 were obtained from the April 1, 1970, April 1, 1980 and April 1, 1990 census counts. Data for 1980 and 1990 include revised census data as released by the Census Bureau. The population totals used for 1971-1979 are intercensal estimates prepared by the Census Bureau utilizing the revised 1980 census figures. The breakdowns of these totals by age, race, and sex were prepared by the Office of the State Registrar and Center for Health Statistics. For 1970 and 1980 the proportion of the total population in each age, race, and sex group was computed. Estimates of the proportion of the total population in each age, race, and sex group for the years 1971-1979 were then derived by interpolating between the proportions for 1970 and 1980. These subgroup proportions were then applied to the state totals to obtain population estimates by age, race, and sex for years 1971-1979.

Population estimates for 1985 through 1989 by age and sex were obtained by adding births, removing deaths and aging the remaining population, using Census Bureau-National Cancer Institute 1984 age, race and sex population estimates. Black and other race estimates for 1984 were prepared by projecting the mean annual change in the race proportions of each age-sex group of the non-white population observed between 1970 and 1980. Revised estimates of the proportion of the total population in each age, race and sex group for the years 1981-1983 were derived by interpolating between the populations for 1980 and 1984. Revised population data from the 1990 census were used to calculate the rates presented in this report.

The age-adjusted rates for Michigan presented in this report for years 1970-1991 were calculated using Michigan resident mortality data and the series of population data described above. Death records with the race not stated were first randomly allocated to the white and other than white groups based on the proportion of Michigan resident deaths in each of the racial categories for that year. Records with sex not stated were randomly assigned to male and female (50 percent each). Records with age not stated were allocated to the age group 85 and over.

In the age-adjustment procedure ten age groups were employed including under 1 year, 1-14 years, ten year age groups from 15-24 years to age 75-84, and 85 years and over. Age-specific rates for the total population and for each subgroup were applied to the same standard population distributed by age. The resulting expected deaths were then summed over the ten age groups and divided by the total of the standard population to obtain the age-adjusted rate. The standard population selected was the 1940 United

States enumerated population. Comparisons can be made between subgroup rates, between rates in different years, and between rates for Michigan and similarly computed rates for the United States.

UNITED STATES DEATH RATES

Death rates for the United States were taken from publications by the National Center for Health Statistics, U.S. Dept. of Health and Human Services. Rates for the United States shown in the series of tables of death rates for Michigan and the United States have been revised for 1971-1980 based on the 1980 census enumeration, as a result of the large difference between the 1980 census enumeration and the previously estimated population for 1980. The 1980 census enumeration was about 5.5 million higher than the estimated population for April 1, 1980. Rates for 1981-1989 were revised based on the 1990 census enumeration.

Provisional U.S. rates for 1991 are based on the 1980 census of population and do not reflect the results of the 1990 census enumeration.

COUNTY AND STATE HEALTH STATISTICS PROFILES

Profiles of county and state vital events statistics are presented in a one page summary form for each county and the state as a whole. The profiles contain those data most often requested of the Center for Health Statistics by health data users.

For further county or state information, please direct your inquiries to the address or phone number printed in the Introduction.

Profile of Michigan

POPULATION
As of April 1, 1990: 9,295,297
Rank Among Counties: -
Per Square Mile: 163.2

NATALITY
Total Live Births: 149,478
Teenage Mothers: 19,739
Low Weight Births: 11,706
First Births: 58,806

MORTALITY
Total Deaths: 79,738
Infant Deaths: 1,554
Neonatal Deaths: 1,003
Postneonatal Deaths: 551
Perinatal Deaths: 1,620
Fetal Deaths: 775

MARRIAGE
Marriages: 72,747
Marriage Rate: 15.7

DIVORCE
Divorces: 40,103
Divorce Rate: 8.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	149,478	16.1	114,983	14.7	31,543	24.3	2,522	15.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	19,739	132.1	11,256	97.9	8,167	258.9	283	112.2
Low Weight	11,706	78.3	6,653	57.9	4,858	154.0	161	63.8
Under 1,500 Grams	2,326	15.6	1,172	10.2	1,129	35.8	16	6.3
< 38 Weeks Gestation	26,436	176.9	17,180	149.4	8,760	277.7	427	169.3
Prenatal Care Began in 1st Trimester	116,752	781.1	94,625	822.9	20,004	634.2	1,830	725.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1,554	10.4	857	7.5	683	21.7	13	5.2
Neonatal Deaths	1,003	6.7	548	4.8	449	14.2	6	2.4
Postneonatal Deaths	551	3.7	309	2.7	234	7.4	7	2.8
Perinatal Deaths	1,620	10.8	956	8.3	616	19.4	21	8.3
Fetal Deaths	775	5.2	508	4.4	223	7.0	17	6.7

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	79,736	40,932	38,802	67,182	33,986	33,195	11,980	6,630	5,347	534	292	242
Mortality Rate	8.6	9.1	8.1	8.6	8.9	8.3	9.2	10.9	7.7	3.3	3.6	2.9

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1,554	299	143	176	648	736	816	2,506	3,657	6,253	14,161	48,785	4
White Male	502	105	56	96	274	339	370	1,079	1,628	2,947	6,995	19,594	1
White Female	354	105	54	35	127	102	162	547	971	1,983	4,774	23,980	1
Black Male	393	50	20	34	204	230	206	551	659	740	1,275	2,267	1
Black Female	287	34	12	9	35	50	69	289	354	508	1,005	2,694	1
Other Male	8	2	1	2	5	12	8	23	23	45	61	102	-
Other Female	5	3	-	-	3	3	1	15	19	26	45	122	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	79,738	857.8	67,182	857.7	11,980	922.7	1,266	48.4
Diseases of the Heart	27,517	296.0	23,818	304.1	3,544	273.0	32	1.2
Malignant Neoplasms	19,204	206.6	16,533	211.1	2,527	194.6	120	4.6
Cerebrovascular Diseases	5,165	55.6	4,461	57.0	668	51.4	6	0.2
Accidents and Adverse Effects	3,011	32.4	2,520	32.2	450	34.7	517	19.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,117	33.5	2,844	36.3	253	19.5	8	0.3
Pneumonia and Influenza	2,773	29.8	2,418	30.9	333	25.6	17	0.6
Diabetes Mellitus	2,095	22.5	1,689	21.6	393	30.3	2	*
Chronic Liver Disease and Cirrhosis	1,060	11.4	824	10.5	225	17.3	1	*
Homicide	1,138	12.2	338	4.3	791	60.9	217	8.3
Suicide	1,139	12.3	1,008	12.9	117	9.0	92	3.5
Atherosclerosis	823	8.9	786	10.0	36	2.8	-	-
AIDS	465	5.0	254	3.2	210	16.2	7	0.3

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Alcona County

POPULATION
As of April 1, 1990: 10,145
Rank Among Counties: 74
Per Square Mile: 14.9

NATALITY
Total Live Births: 99
Teenage Mothers: 11
Low Weight Births: 4
First Births: 38

MORTALITY
Total Deaths: 156
Infant Deaths: -
Neonatal Deaths: -
Postneonatal Deaths: -
Perinatal Deaths: 1
Fetal Deaths: 1

MARRIAGE
Marriages: 82
Marriage Rate: 16.2

DIVORCE
Divorces: 32
Divorce Rate: 6.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	99	9.8	96	9.8	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	11	111.1	9	93.8	-	-	2	*
Low Weight	4	*	4	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	11	111.1	10	104.2	-	-	1	*
Prenatal Care Began in 1st Trimester	83	838.4	82	854.2	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	156	92	64	154	90	64	-	-	-	2	2	-
Mortality Rate	15.4	18.2	12.6	15.3	18.1	12.7	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	1	-	2	2	5	11	25	110	-
White Male	-	-	-	-	-	-	1	2	4	6	14	63	-
White Female	-	-	-	-	1	-	1	-	1	4	11	46	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	156	1,537.7	154	1,534.5	-	-	1	*
Diseases of the Heart	60	591.4	60	597.8	-	-	-	-
Malignant Neoplasms	34	335.1	32	318.9	-	-	-	-
Cerebrovascular Diseases	9	88.7	9	89.7	-	-	-	-
Accidents and Adverse Effects	7	69.0	7	69.7	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	69.0	7	69.7	-	-	-	-
Pneumonia and Influenza	6	59.1	6	59.8	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Alger County

POPULATION	
As of April 1, 1990:	8,972
Rank Among Counties:	75
Per Square Mile:	9.8

NATALITY	
Total Live Births:	93
Teenage Mothers:	15
Low Weight Births:	3
First Births:	41

MORTALITY	
Total Deaths:	113
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	1
Fetal Deaths:	1

MARRIAGE	
Marriages:	64
Marriage Rate:	14.3

DIVORCE	
Divorces:	43
Divorce Rate:	9.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	93	10.4	86	10.2	-	-	7	21.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	15	161.3	14	162.8	-	-	1	*
Low Weight	3	*	2	*	-	-	1	*
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	14	150.5	13	151.2	-	-	1	*
Prenatal Care Began in 1st Trimester	74	795.7	69	802.3	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	113	59	54	112	59	53	-	-	-	1	-	1
Mortality Rate	12.6	12.8	12.4	13.3	13.9	12.6	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	1	2	1	5	6	12	86	-
White Male	-	-	-	-	-	1	2	1	4	2	8	41	-
White Female	-	-	-	-	-	-	-	-	1	4	4	44	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	113	1,259.5	112	1,328.6	-	-	-	-
Diseases of the Heart	51	568.4	51	605.0	-	-	-	-
Malignant Neoplasms	26	289.8	25	296.6	-	-	-	-
Cerebrovascular Diseases	10	111.5	10	118.6	-	-	-	-
Accidents and Adverse Effects	2	*	2	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	*	2	*	-	-	-	-
Pneumonia and Influenza	3	*	3	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Allegan County

POPULATION

As of April 1, 1990:	90,509
Rank Among Counties:	21
Per Square Mile:	108.8

NATALITY

Total Live Births:	1,406
Teenage Mothers:	170
Low Weight Births:	77
First Births:	547

MORTALITY

Total Deaths:	708
Infant Deaths:	6
Neonatal Deaths:	3
Postneonatal Deaths:	3
Perinatal Deaths:	11
Fetal Deaths:	8

MARRIAGE

Marriages:	715
Marriage Rate:	15.8

DIVORCE

Divorces:	421
Divorce Rate:	9.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,406	15.5	1,367	15.5	21	14.3	18	18.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	170	120.9	164	120.0	3	*	3	*
Low Weight	77	54.8	76	55.6	-	-	1	*
Under 1,500 Grams	18	12.8	17	12.4	-	-	1	*
< 38 Weeks Gestation	183	130.2	175	128.0	5	*	3	*
Prenatal Care Began in 1st Trimester	1,148	816.5	1,121	820.0	11	523.8	16	888.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	4.3	5	*	-	-	1	*
Neonatal Deaths	3	*	2	*	-	-	1	*
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	11	7.8	10	7.3	-	-	1	*
Fetal Deaths	8	5.7	8	5.8	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	708	357	351	683	347	336	22	9	13	3	1	2
Mortality Rate	7.8	8.0	7.7	7.8	8.0	7.5	15.0	10.4	21.5	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	2	-	1	6	6	5	15	19	49	106	493	-
White Male	3	2	-	1	4	5	3	8	10	25	56	230	-
White Female	2	-	-	-	2	1	2	6	8	22	43	250	-
Black Male	-	-	-	-	-	-	-	1	1	-	3	4	-
Black Female	-	-	-	-	-	-	-	-	-	2	4	7	-
Other Male	1	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	708	782.2	683	775.7	22	1,496.6	9	32.3
Diseases of the Heart	233	257.4	226	256.7	6	408.2	-	-
Malignant Neoplasms	163	180.1	156	177.2	7	476.2	-	-
Cerebrovascular Diseases	40	44.2	37	42.0	3	*	-	-
Accidents and Adverse Effects	31	34.3	29	32.9	2	*	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	34	37.6	34	38.6	-	-	-	-
Pneumonia and Influenza	31	34.3	31	35.2	-	-	-	-
Diabetes Mellitus	22	24.3	20	22.7	2	*	-	-
Chronic Liver Disease and Cirrhosis	12	13.3	12	13.6	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	9	9.9	9	10.2	-	-	2	*
Atherosclerosis	18	19.9	18	20.4	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Alpena County

POPULATION

As of April 1, 1990:	30,605
Rank Among Counties:	46
Per Square Mile:	53.9

NATALITY

Total Live Births:	360
Teenage Mothers:	55
Low Weight Births:	23
First Births:	149

MORTALITY

Total Deaths:	302
Infant Deaths:	2
Neonatal Deaths:	2
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	1

MARRIAGE

Marriages:	249
Marriage Rate:	16.3

DIVORCE

Divorces:	166
Divorce Rate:	10.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	360	11.8	355	11.7	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	55	152.8	53	149.3	-	-	2	*
Low Weight	23	63.9	23	64.8	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	54	150.0	54	152.1	-	-	-	-
Prenatal Care Began in 1st Trimester	316	877.8	313	881.7	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	302	161	141	301	161	140	-	-	-	1	-	1
Mortality Rate	9.9	10.8	8.9	9.9	10.9	8.9	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	4	1	1	1	1	2	3	13	25	52	197	-
White Male	1	1	1	1	1	1	1	2	11	15	29	97	-
White Female	1	3	-	-	-	-	1	1	2	10	22	100	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

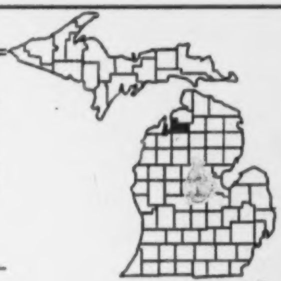
LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	302	986.8	301	990.4	-	-	7	82.0
Diseases of the Heart	102	333.3	102	335.6	-	-	-	-
Malignant Neoplasms	92	300.6	91	299.4	-	-	2	*
Cerebrovascular Diseases	22	71.9	22	72.4	-	-	-	-
Accidents and Adverse Effects	14	45.7	14	46.1	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	32.7	10	32.9	-	-	-	-
Pneumonia and Influenza	6	19.6	6	19.7	-	-	1	*
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Antrim County



POPULATION

As of April 1, 1990:	18,185
Rank Among Counties:	62
Per Square Mile:	37.9

MARRIAGE

Marriages:	165
Marriage Rate:	18.1

NATALITY

Total Live Births:	241
Teenage Mothers:	32
Low Weight Births:	13
First Births:	83

DIVORCE

Divorces:	71
Divorce Rate:	7.8

MORTALITY

Total Deaths:	202
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	241	13.3	235	13.1	-	-	6	25.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	32	132.8	30	127.7	-	-	2	*
Low Weight	13	53.9	13	55.3	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	36	149.4	34	144.7	-	-	2	*
Prenatal Care Began in 1st Trimester	174	722.0	170	723.4	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	202	102	100	198	100	98	-	-	-	4	2	2
Mortality Rate	11.1	11.5	10.8	11.0	11.4	10.7	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	3	2	-	5	4	22	28	137	-
White Male	-	-	-	-	1	2	-	2	3	12	17	63	-
White Female	1	-	-	-	2	-	-	3	1	9	9	73	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	202	1,110.8	198	1,104.5	-	-	3	*
Diseases of the Heart	78	428.9	76	424.0	-	-	-	-
Malignant Neoplasms	52	285.9	51	284.5	-	-	-	-
Cerebrovascular Diseases	15	82.5	15	83.7	-	-	-	-
Accidents and Adverse Effects	13	71.5	13	72.5	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	44.0	8	44.6	-	-	-	-
Pneumonia and Influenza	10	55.0	10	55.8	-	-	-	-
Diabetes Mellitus	3	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	2	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Arenac County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	14,931	Total Live Births:	224	Total Deaths:	186
Rank Among Counties:	66	Teenage Mothers:	36	Infant Deaths:	3
Per Square Mile:	40.6	Low Weight Births:	14	Neonatal Deaths:	3
		First Births:	70	Postneonatal Deaths:	-
				Perinatal Deaths:	5
				Fetal Deaths:	2

MARRIAGE		DIVORCE	
Marriages:	109	Divorces:	82
Marriage Rate:	14.6	Divorce Rate:	11.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	224	15.0	220	14.9	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	160.7	34	154.5	-	-	1	*
Low Weight	14	62.5	14	63.6	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	36	160.7	35	159.1	-	-	1	*
Prenatal Care Began in 1st Trimester	187	834.8	185	840.9	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	186	99	87	182	96	86	1	1	-	3	2	1
Mortality Rate	12.5	13.6	11.4	12.3	13.3	11.4	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	1	-	1	3	4	6	12	27	129	-
White Male	2	-	-	-	-	-	1	1	5	6	17	64	-
White Female	1	-	-	1	-	1	1	3	-	5	10	64	-
Black Male	-	-	-	-	-	-	1	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	186	1,245.7	182	1,234.5	1	*	1	*
Diseases of the Heart	70	468.8	70	474.8	-	-	-	-
Malignant Neoplasms	46	308.1	45	305.2	-	-	-	-
Cerebrovascular Diseases	10	67.0	10	67.8	-	-	-	-
Accidents and Adverse Effects	9	60.3	9	61.0	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	40.2	6	40.7	-	-	-	-
Pneumonia and Influenza	7	46.9	6	40.7	1	*	-	-
Diabetes Mellitus	1	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Baraga County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	7,954	Total Live Births:	108	Total Deaths:	110
Rank Among Counties:	80	Teenage Mothers:	9	Infant Deaths:	-
Per Square Mile:	8.8	Low Weight Births:	12	Neonatal Deaths:	-
		First Births:	32	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	61	Divorces:	25		
Marriage Rate:	15.3	Divorce Rate:	6.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	108	13.6	79	11.3	-	-	29	31.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	83.3	5	*	-	-	4	*
Low Weight	12	111.1	8	101.3	-	-	4	*
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	11	101.9	10	126.6	-	-	1	*
Prenatal Care Began in 1st Trimester	82	759.3	62	784.8	-	-	20	689.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	110	64	46	101	58	43	-	-	-	9	6	3
Mortality Rate	13.8	16.0	11.6	14.5	16.5	12.4	-	-	-	9.7	13.7	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	1	1	-	3	4	4	13	83	-
White Male	-	-	-	-	1	1	-	1	1	2	8	44	-
White Female	-	-	-	1	-	-	-	1	2	1	4	34	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	1	-	1	3	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	110	1,383.0	101	1,448.0	-	-	2	*
Diseases of the Heart	42	528.0	40	573.5	-	-	-	-
Malignant Neoplasms	27	339.5	25	358.4	-	-	-	-
Cerebrovascular Diseases	7	88.0	6	86.0	-	-	-	-
Accidents and Adverse Effects	6	75.4	6	86.0	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	5	*	4	*	-	-	-	-
Diabetes Mellitus	6	75.4	6	86.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Barry County

POPULATION

As of April 1, 1990:	50,057
Rank Among Counties:	34
Per Square Mile:	89.4

NATALITY

Total Live Births:	728
Teenage Mothers:	84
Low Weight Births:	25
First Births:	259

MORTALITY

Total Deaths:	364
Infant Deaths:	3
Neonatal Deaths:	2
Postneonatal Deaths:	1
Perinatal Deaths:	4
Fetal Deaths:	2

MARRIAGE

Marriages:	416
Marriage Rate:	16.6

DIVORCE

Divorces:	250
Divorce Rate:	10.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	728	14.5	723	14.6	-	-	5	•

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	84	115.4	83	114.8	-	-	1	•
Low Weight	25	34.3	25	34.6	-	-	-	-
-Under 1,500 Grams	4	•	4	•	-	-	-	-
< 38 Weeks Gestation	116	159.3	116	160.4	-	-	-	-
Prenatal Care Began in 1st Trimester	583	800.8	580	802.2	-	-	3	•

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	•	3	•	-	-	-	-
Neonatal Deaths	2	•	2	•	-	-	-	-
Postneonatal Deaths	1	•	1	•	-	-	-	-
Perinatal Deaths	4	•	4	•	-	-	-	-
Fetal Deaths	2	•	2	•	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	364	197	166	361	196	164	-	-	-	3	1	2
Mortality Rate	7.3	7.9	6.6	7.3	7.9	6.6	-	-	-	•	•	•

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	1	1	3	4	3	6	10	17	29	52	235	-
White Male	2	-	-	3	4	3	6	8	10	16	31	113	-
White Female	-	1	1	-	-	-	-	2	6	12	21	121	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	364	727.2	361	727.6	-	-	9	61.3
Diseases of the Heart	126	251.7	126	254.0	-	-	-	-
Malignant Neoplasms	79	157.8	76	153.2	-	-	1	•
Cerebrovascular Diseases	24	47.9	24	48.4	-	-	1	•
Accidents and Adverse Effects	24	47.9	24	48.4	-	-	4	•
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	34.0	17	34.3	-	-	-	-
Pneumonia and Influenza	20	40.0	20	40.3	-	-	1	•
Diabetes Mellitus	4	•	4	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	•	3	•	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	14.0	7	14.1	-	-	2	•
Atherosclerosis	4	•	4	•	-	-	-	-
AIDS	1	•	1	•	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Bay County

POPULATION	
As of April 1, 1990:	111,723
Rank Among Counties:	18
Per Square Mile:	249.8

NATALITY	
Total Live Births:	1,597
Teenage Mothers:	210
Low Weight Births:	98
First Births:	624

MORTALITY	
Total Deaths:	1,009
Infant Deaths:	19
Neonatal Deaths:	14
Postneonatal Deaths:	5
Perinatal Deaths:	23
Fetal Deaths:	12

MARRIAGE	
Marriages:	904
Marriage Rate:	16.2

DIVORCE	
Divorces:	438
Divorce Rate:	7.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,597	14.3	1,565	14.3	24	19.1	7	5.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	210	131.5	201	128.4	6	250.0	3	*
Low Weight	98	61.4	94	60.1	2	*	2	*
Under 1,500 Grams	22	13.8	20	12.8	1	*	1	*
< 38 Weeks Gestation	226	141.5	216	138.0	8	333.3	2	*
Prenatal Care Began in 1st Trimester	1,384	866.6	1,362	870.3	16	666.7	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	19	11.9	16	10.2	2	*	1	*
Neonatal Deaths	14	8.8	12	7.7	1	*	1	*
Postneonatal Deaths	5	*	4	*	1	*	-	-
Perinatal Deaths	23	14.3	20	12.7	2	*	1	*
Fetal Deaths	12	7.5	11	7.0	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,009	530	479	992	525	467	11	3	8	6	2	4
Mortality Rate	9.0	9.8	8.3	9.1	9.9	8.3	8.8	*	13.6	4.8	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	19	5	1	2	5	11	11	22	38	63	180	652	-
White Male	12	5	1	2	3	7	8	12	24	41	105	305	-
White Female	4	-	-	-	2	3	3	8	12	21	75	339	-
Black Male	-	-	-	-	-	-	-	-	1	1	-	1	-
Black Female	2	-	-	-	-	1	-	1	1	-	-	3	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	2	-
Other Female	1	-	-	-	-	-	-	1	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,009	903.1	992	908.2	11	876.5	13	41.9
Diseases of the Heart	378	338.3	372	340.6	3	*	1	*
Malignant Neoplasms	259	231.8	259	237.1	-	-	1	*
Cerebrovascular Diseases	54	48.3	53	48.5	1	*	-	-
Accidents and Adverse Effects	42	37.6	41	37.5	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	43	38.5	43	39.4	-	-	-	-
Pneumonia and Influenza	17	15.2	17	15.6	-	-	-	-
Diabetes Mellitus	27	24.2	27	24.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	16	14.3	15	13.7	1	*	-	-
Homicide	6	5.4	5	*	1	*	1	*
Suicide	21	18.8	21	19.2	-	-	4	*
Atherosclerosis	22	19.7	22	20.1	-	-	-	-
AIDS	7	6.3	7	6.4	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Benzie County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	12,200	Total Live Births:	164	Total Deaths:	150
Rank Among Counties:	71	Teenage Mothers:	16	Infant Deaths:	2
Per Square Mile:	37.9	Low Weight Births:	6	Neonatal Deaths:	-
		First Births:	63	Postneonatal Deaths:	2
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	118	Divorces:	64		
Marriage Rate:	19.3	Divorce Rate:	10.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	164	13.4	160	13.4	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	16	97.6	15	93.8	-	-	1	*
Low Weight	6	36.6	6	37.5	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	16	97.6	16	100.0	-	-	-	-
Prenatal Care Began in 1st Trimester	113	689.0	111	693.8	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	150	92	58	147	90	57	2	2	-	1	-	1
Mortality Rate	12.3	15.3	9.4	12.4	15.4	9.4	*	*	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	-	1	1	3	3	8	26	106	-
White Male	2	-	-	-	-	1	-	1	-	5	16	65	-
White Female	-	-	-	-	-	-	-	2	3	3	9	40	-
Black Male	-	-	-	-	-	-	1	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	150	1,229.5	147	1,235.7	2	*	-	-
Diseases of the Heart	49	401.6	49	411.9	-	-	-	-
Malignant Neoplasms	43	352.5	42	353.1	-	-	-	-
Cerebrovascular Diseases	7	57.4	7	58.8	-	-	-	-
Accidents and Adverse Effects	5	*	5	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	90.2	11	92.5	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	4	*	3	*	1	*	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	*	-	-	1	*	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Berrien County

POPULATION

As of April 1, 1990:	161,378
Rank Among Counties:	11
Per Square Mile:	280.1

NATALITY

Total Live Births:	2,337
Teenage Mothers:	473
Low Weight Births:	199
First Births:	928

MORTALITY

Total Deaths:	1,615
Infant Deaths:	33
Neonatal Deaths:	19
Postneonatal Deaths:	14
Perinatal Deaths:	30
Fetal Deaths:	14

MARRIAGE

Marriages:	1,313
Marriage Rate:	16.3

DIVORCE

Divorces:	728
Divorce Rate:	9.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,337	14.5	1,587	11.8	718	28.7	29	13.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	473	202.4	205	129.2	264	367.7	3	*
Low Weight	199	85.2	92	58.0	106	147.6	1	*
Under 1,500 Grams	36	15.4	14	8.8	22	30.6	-	-
< 38 Weeks Gestation	426	182.3	231	145.6	189	263.2	5	*
Prenatal Care Began in 1st Trimester	1,500	641.8	1,118	704.5	362	504.2	17	586.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	33	14.1	16	10.1	17	23.7	-	-
Neonatal Deaths	19	8.1	10	6.3	9	12.5	-	-
Postneonatal Deaths	14	6.0	6	3.8	8	11.1	-	-
Perinatal Deaths	30	12.8	19	11.9	11	15.2	-	-
Fetal Deaths	14	6.0	10	6.3	4	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,615	837	778	1,401	712	689	205	121	84	8	3	5
Mortality Rate	10.0	10.8	9.3	10.4	11.0	10.0	8.2	10.7	6.1	3.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	33	6	3	2	10	15	19	35	53	127	285	1,027	-
White Male	6	2	-	1	5	7	11	25	26	67	146	416	-
White Female	10	2	1	-	1	1	4	2	20	40	93	515	-
Black Male	10	2	2	1	3	5	3	4	4	11	26	50	-
Black Female	7	-	-	-	1	-	1	3	3	8	18	43	-
Other Male	-	-	-	-	-	2	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	2	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,615	1,000.8	1,401	1,044.0	205	820.5	21	45.6
Diseases of the Heart	517	320.4	467	348.0	49	196.1	1	*
Malignant Neoplasms	384	238.0	332	247.4	51	204.1	3	*
Cerebrovascular Diseases	118	73.1	101	75.3	16	64.0	-	-
Accidents and Adverse Effects	74	45.9	58	43.2	13	52.0	11	23.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	74	45.9	63	46.9	9	36.0	-	-
Pneumonia and Influenza	50	31.0	43	32.0	7	28.0	1	*
Diabetes Mellitus	41	25.4	35	26.1	6	24.0	-	-
Chronic Liver Disease and Cirrhosis	13	8.1	12	8.9	1	*	-	-
Homicide	10	6.2	4	*	6	24.0	1	*
Suicide	22	13.6	22	16.4	-	-	1	*
Atherosclerosis	29	18.0	29	21.6	-	-	-	-
AIDS	4	*	2	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Branch County

POPULATION

As of April 1, 1990:	41,502
Rank Among Counties:	37
Per Square Mile:	81.7

NATALITY

Total Live Births:	549
Teenage Mothers:	80
Low Weight Births:	39
First Births:	201

MORTALITY

Total Deaths:	393
Infant Deaths:	6
Neonatal Deaths:	3
Postneonatal Deaths:	3
Perinatal Deaths:	6
Fetal Deaths:	3

MARRIAGE

Marriages:	369
Marriage Rate:	17.8

DIVORCE

Divorces:	231
Divorce Rate:	11.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	549	13.2	539	13.3	1	*	9	23.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	80	145.7	79	146.6	1	*	-	-
Low Weight	39	71.0	38	70.5	-	-	1	*
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	81	147.5	78	144.7	-	-	3	*
Prenatal Care Began in 1st Trimester	389	708.6	387	718.0	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	10.9	6	11.1	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	6	10.9	6	11.1	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	393	200	193	390	198	192	-	-	-	2	2	-
Mortality Rate	9.5	9.9	9.1	9.6	10.0	9.3	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	1	2	4	4	8	12	36	70	249	-
White Male	4	1	-	1	1	2	3	5	7	23	40	111	-
White Female	2	-	-	-	1	2	-	2	5	13	30	137	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	1	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	393	946.9	390	965.0	-	-	4	*
Diseases of the Heart	144	347.0	144	356.3	-	-	-	-
Malignant Neoplasms	85	204.8	83	205.4	-	-	-	-
Cerebrovascular Diseases	13	31.3	13	32.2	-	-	-	-
Accidents and Adverse Effects	15	36.1	14	34.6	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	25	60.2	25	61.9	-	-	-	-
Pneumonia and Influenza	14	33.7	14	34.6	-	-	-	-
Diabetes Mellitus	14	33.7	14	34.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	6	14.5	6	14.8	-	-	1	*
Atherosclerosis	7	16.9	7	17.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Calhoun County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	135,982	Total Live Births:	2,142	Total Deaths:	1,368
Rank Among Counties:	15	Teenage Mothers:	356	Infant Deaths:	19
Per Square Mile:	191.1	Low Weight Births:	184	Neonatal Deaths:	10
		First Births:	835	Postneonatal Deaths:	9
				Perinatal Deaths:	14
				Fetal Deaths:	7

MARRIAGE		DIVORCE	
Marriages:	1,201	Divorces:	795
Marriage Rate:	17.7	Divorce Rate:	11.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,142	15.8	1,711	14.3	400	27.6	30	16.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	356	166.2	240	140.3	116	290.0	-	-
Low Weight	184	85.9	114	66.6	68	170.0	2	*
Under 1,500 Grams	30	14.0	22	12.9	8	20.0	-	-
< 38 Weeks Gestation	393	183.5	277	161.9	109	272.5	6	200.0
Prenatal Care Began in 1st Trimester	1,488	694.7	1,288	752.8	178	445.0	21	700.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	19	8.9	15	8.8	3	*	1	*
Neonatal Deaths	10	4.7	9	5.3	-	-	1	*
Postneonatal Deaths	9	4.2	6	3.5	3	*	-	-
Perinatal Deaths	14	6.5	11	6.4	3	*	-	-
Fetal Deaths	7	3.3	4	*	3	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,368	694	674	1,236	622	614	122	67	55	10	5	5
Mortality Rate	10.1	10.6	9.6	10.3	10.7	9.9	8.4	9.7	7.3	5.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	19	5	1	3	9	7	17	39	57	118	215	878	-
White Male	10	2	1	2	6	3	9	20	31	65	115	358	-
White Female	5	1	-	1	2	-	4	11	20	35	75	460	-
Black Male	1	1	-	-	1	4	3	4	4	9	14	26	-
Black Female	2	-	-	-	-	-	1	3	1	7	9	32	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	2	-
Other Female	1	1	-	-	-	-	-	1	-	1	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,368	1,006.0	1,236	1,032.5	122	842.7	18	46.8
Diseases of the Heart	461	339.0	428	357.5	33	227.9	1	*
Malignant Neoplasms	304	223.6	271	226.4	31	214.1	1	*
Cerebrovascular Diseases	86	63.2	79	66.0	7	48.3	-	-
Accidents and Adverse Effects	55	40.4	48	40.1	7	48.3	9	23.4
Chronic Obstructive Pulmonary Diseases and Allied Conditions	50	36.8	49	40.9	1	*	-	-
Pneumonia and Influenza	66	48.5	61	51.0	5	*	-	-
Diabetes Mellitus	46	33.8	39	32.6	6	41.4	-	-
Chronic Liver Disease and Cirrhosis	21	15.4	20	16.7	1	*	-	-
Homicide	17	12.5	9	7.5	7	48.3	4	*
Suicide	18	13.2	17	14.2	1	*	-	-
Atherosclerosis	19	14.0	17	14.2	2	*	-	-
AIDS	5	*	4	*	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Cass County

POPULATION	
As of April 1, 1990:	49,477
Rank Among Counties:	35
Per Square Mile:	99.7

NATALITY	
Total Live Births:	434
Teenage Mothers:	82
Low Weight Births:	21
First Births:	177

MORTALITY	
Total Deaths:	410
Infant Deaths:	4
Neonatal Deaths:	2
Postneonatal Deaths:	2
Perinatal Deaths:	6
Fetal Deaths:	5

MARRIAGE	
Marriages:	374
Marriage Rate:	15.1

DIVORCE	
Divorces:	265
Divorce Rate:	10.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	434	8.8	361	8.0	66	17.6	6	9.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	82	188.9	60	166.2	21	318.2	-	-
Low Weight	21	48.4	17	47.1	4	*	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	62	142.9	44	121.9	16	242.4	1	*
Prenatal Care Began in 1st Trimester	254	585.3	225	623.3	27	409.1	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	6	13.7	5	*	1	*	-	-
Fetal Deaths	5	*	4	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	410	192	218	361	175	186	47	17	30	2	-	2
Mortality Rate	8.3	7.9	8.7	8.0	7.9	8.1	12.5	9.6	15.2	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	1	1	3	5	4	10	19	39	73	250	-
White Male	2	1	1	1	2	3	3	7	9	17	35	94	-
White Female	2	-	-	-	1	2	-	-	6	18	30	127	-
Black Male	-	-	-	-	-	-	1	1	2	-	5	8	-
Black Female	-	-	-	-	-	-	-	1	2	4	3	20	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	410	828.7	361	801.2	47	1,252.7	6	42.4
Diseases of the Heart	144	291.0	126	279.6	18	479.7	-	-
Malignant Neoplasms	98	198.1	91	202.0	7	186.6	1	*
Cerebrovascular Diseases	21	42.4	18	39.9	3	*	1	*
Accidents and Adverse Effects	31	62.7	24	53.3	6	159.9	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	22	44.5	21	46.6	1	*	-	-
Pneumonia and Influenza	14	28.3	12	26.6	1	*	-	-
Diabetes Mellitus	12	24.3	7	15.5	5	*	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	6	12.1	6	13.3	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	2	*	1	*	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Charlevoix County

POPULATION

As of April 1, 1990:	21,468
Rank Among Counties:	56
Per Square Mile:	51.0

NATALITY

Total Live Births:	305
Teenage Mothers:	28
Low Weight Births:	12
First Births:	129

MORTALITY

Total Deaths:	183
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE

Marriages:	194
Marriage Rate:	18.1

DIVORCE

Divorces:	105
Divorce Rate:	9.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	305	14.2	295	14.0	-	-	10	23.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	28	91.8	26	88.1	-	-	2	*
Low Weight	12	39.3	11	37.3	-	-	1	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	31	101.6	28	94.9	-	-	3	*
Prenatal Care Began in 1st Trimester	261	855.7	252	854.2	-	-	9	900.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	183	94	89	181	93	88	-	-	-	1	1	-
Mortality Rate	8.5	8.9	8.1	8.6	9.0	8.2	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	1	-	2	1	1	5	5	17	30	119	-
White Male	1	-	-	-	2	-	-	4	4	9	12	61	-
White Female	1	-	1	-	-	1	1	1	1	7	18	57	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	183	852.4	181	860.6	-	-	3	*
Diseases of the Heart	54	251.5	53	252.0	-	-	-	-
Malignant Neoplasms	50	232.9	50	237.7	-	-	1	*
Cerebrovascular Diseases	13	60.6	13	61.8	-	-	-	-
Accidents and Adverse Effects	10	46.6	10	47.5	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	27.9	6	28.5	-	-	-	-
Pneumonia and Influenza	9	41.9	9	42.8	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	2	*	2	*	-	-	1	*
Suicide	4	*	4	*	-	-	1	*
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Cheboygan County

POPULATION

As of April 1, 1990:	21,398
Rank Among Counties:	57
Per Square Mile:	29.7

NATALITY

Total Live Births:	269
Teenage Mothers:	31
Low Weight Births:	13
First Births:	112

MORTALITY

Total Deaths:	236
Infant Deaths:	3
Neonatal Deaths:	1
Postneonatal Deaths:	2
Perinatal Deaths:	7
Fetal Deaths:	6

MARRIAGE

Marriages:	181
Marriage Rate:	16.9

DIVORCE

Divorces:	106
Divorce Rate:	9.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	269	12.6	248	11.9	2	*	19	35.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	31	115.2	26	104.8	1	*	4	*
Low Weight	13	48.3	10	40.3	-	-	3	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	49	182.2	44	177.4	-	-	5	*
Prenatal Care Began in 1st Trimester	231	858.7	216	871.0	2	*	13	684.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	7	25.5	7	27.6	-	-	-	-
Fetal Deaths	6	21.8	6	23.6	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	236	135	101	233	133	100	-	-	-	3	2	1
Mortality Rate	11.0	13.0	9.2	11.2	13.2	9.3	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	1	2	1	-	3	1	4	6	21	52	142	-
White Male	2	-	1	-	-	3	1	4	6	15	32	69	-
White Female	1	1	1	1	-	-	-	-	-	6	18	72	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	236	1,102.9	233	1,117.7	-	-	4	*
Diseases of the Heart	77	359.8	76	364.6	-	-	-	-
Malignant Neoplasms	70	327.1	70	335.8	-	-	1	*
Cerebrovascular Diseases	10	46.7	9	43.2	-	-	-	-
Accidents and Adverse Effects	7	32.7	7	33.6	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	51.4	10	48.0	-	-	-	-
Pneumonia and Influenza	10	46.7	10	48.0	-	-	-	-
Diabetes Mellitus	6	28.0	6	28.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	2	*	2	*	-	-	1	*
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Chippewa County

POPULATION

As of April 1, 1990:	34,604
Rank Among Counties:	45
Per Square Mile:	21.8

NATALITY

Total Live Births:	393
Teenage Mothers:	52
Low Weight Births:	14
First Births:	148

MORTALITY

Total Deaths:	254
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	3
Fetal Deaths:	2

MARRIAGE

Marriages:	281
Marriage Rate:	16.2

DIVORCE

Divorces:	108
Divorce Rate:	6.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	393	11.4	325	11.4	1	*	66	16.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	52	132.3	38	116.9	1	*	12	181.8
Low Weight	14	35.6	14	43.1	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	50	127.2	40	123.1	-	-	10	151.5
Prenatal Care Began in 1st Trimester	298	758.3	251	772.3	-	-	46	697.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	254	130	124	236	119	117	2	2	-	16	9	7
Mortality Rate	7.3	6.8	8.0	8.3	7.9	8.7	*	*	-	4.0	4.4	3.6

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	2	2	-	2	1	1	7	11	25	45	157	-
White Male	-	1	-	-	-	1	-	-	7	11	22	77	-
White Female	1	1	2	-	1	-	1	4	3	10	18	76	-
Black Male	-	-	-	-	-	-	-	1	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	1	-	-	1	1	2	3	1	-
Other Female	-	-	-	-	-	-	-	1	-	2	2	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	254	734.0	236	830.1	2	*	6	66.6
Diseases of the Heart	84	242.7	77	270.8	1	*	-	-
Malignant Neoplasms	62	179.2	60	211.0	-	-	-	-
Cerebrovascular Diseases	21	60.7	20	70.3	-	-	-	-
Accidents and Adverse Effects	8	23.1	7	24.6	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	26.0	9	31.7	-	-	-	-
Pneumonia and Influenza	6	17.3	5	*	-	-	-	-
Diabetes Mellitus	8	23.1	7	24.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	2	*	1	*	-	-	1	*
Suicide	4	*	3	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: *Office of the State Registrar and Center for Health Statistics, MDPH*

Profile of Clare County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	24,952	Total Live Births:	383	Total Deaths:	315
Rank Among Counties:	52	Teenage Mothers:	63	Infant Deaths:	2
Per Square Mile:	43.8	Low Weight Births:	30	Neonatal Deaths:	1
		First Births:	133	Postneonatal Deaths:	1
				Perinatal Deaths:	5
				Fetal Deaths:	4

MARRIAGE		DIVORCE	
Marriages:	246	Divorces:	114
Marriage Rate:	19.7	Divorce Rate:	9.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	383	15.3	380	15.4	1	*	-	-

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	63	164.5	63	165.8	-	-	-	-
Low Weight	30	78.3	30	78.9	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	69	180.2	69	181.6	-	-	-	-
Prenatal Care Began in 1st Trimester	294	767.6	293	771.1	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	5	*	4	*	-	-	-	-
Fetal Deaths	4	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	315	180	135	315	180	135	-	-	-	-	-	-
Mortality Rate	12.6	14.9	10.5	12.8	15.1	10.6	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	1	-	-	-	3	6	28	55	219	-
White Male	1	-	-	1	-	-	-	2	3	19	37	117	-
White Female	1	1	-	-	-	-	-	1	3	9	18	102	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	315	1,262.4	315	1,275.5	-	-	2	*
Diseases of the Heart	136	545.0	136	550.7	-	-	1	*
Malignant Neoplasms	74	296.6	74	299.6	-	-	-	-
Cerebrovascular Diseases	20	80.2	20	81.0	-	-	-	-
Accidents and Adverse Effects	7	28.1	7	28.3	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	64.1	16	64.8	-	-	-	-
Pneumonia and Influenza	10	40.1	10	40.5	-	-	-	-
Diabetes Mellitus	10	40.1	10	40.5	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Clinton County

POPULATION

As of April 1, 1990:	57,883
Rank Among Counties:	29
Per Square Mile:	101.0

NATALITY

Total Live Births:	832
Teenage Mothers:	70
Low Weight Births:	45
First Births:	338

MORTALITY

Total Deaths:	375
Infant Deaths:	4
Neonatal Deaths:	3
Postneonatal Deaths:	1
Perinatal Deaths:	10
Fetal Deaths:	7

MARRIAGE

Marriages:	464
Marriage Rate:	16.0

DIVORCE

Divorces:	266
Divorce Rate:	9.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	832	14.4	821	14.4	3	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	70	84.1	67	81.6	1	*	-	-
Low Weight	45	54.1	44	53.6	-	-	-	-
Under 1,500 Grams	8	9.6	8	9.7	-	-	-	-
< 38 Weeks Gestation	106	127.4	102	124.2	1	*	2	*
Prenatal Care Began in 1st Trimester	704	846.2	696	847.7	3	*	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	10	11.9	10	12.1	-	-	-	-
Fetal Deaths	7	8.3	7	8.5	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	375	194	181	371	191	180	-	-	-	4	3	1
Mortality Rate	6.5	6.7	6.2	6.5	6.7	6.3	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	3	-	2	2	3	1	13	12	29	58	248	-
White Male	2	1	-	2	1	3	1	5	9	16	37	114	-
White Female	2	2	-	-	1	-	-	7	3	12	21	132	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	2	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	375	647.9	371	648.9	-	-	7	40.0
Diseases of the Heart	123	212.5	123	215.1	-	-	-	-
Malignant Neoplasms	80	138.2	77	134.7	-	-	1	*
Cerebrovascular Diseases	32	55.3	31	54.2	-	-	-	-
Accidents and Adverse Effects	21	36.3	21	36.7	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	15	25.9	15	26.2	-	-	-	-
Pneumonia and Influenza	15	25.9	15	26.2	-	-	-	-
Diabetes Mellitus	8	13.8	8	14.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	12.1	7	12.2	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	7	12.1	7	12.2	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Crawford County

POPULATION	
As of April 1, 1990:	12,260
Rank Among Counties:	70
Per Square Mile:	21.9

NATALITY	
Total Live Births:	203
Teenage Mothers:	27
Low Weight Births:	15
First Births:	59

MORTALITY	
Total Deaths:	123
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE	
Marriages:	109
Marriage Rate:	17.8

DIVORCE	
Divorces:	51
Divorce Rate:	8.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	203	16.6	197	16.7	2	*	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	27	133.0	25	126.9	1	*	1	*
Low Weight	15	73.9	15	76.1	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	27	133.0	26	132.0	1	*	-	-
Prenatal Care Began in 1st Trimester	153	753.7	147	746.2	2	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	123	66	57	118	62	56	-	-	-	5	4	1
Mortality Rate	10.0	10.5	9.5	10.0	10.5	9.5	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	1	-	1	-	1	1	7	11	20	79	-
White Male	2	-	1	-	1	-	-	1	5	4	11	37	-
White Female	-	-	-	-	-	-	1	-	-	6	9	40	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	2	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,003.3	118	999.2	-	-	2	*
Diseases of the Heart	29	236.5	29	245.6	-	-	-	-
Malignant Neoplasms	25	203.9	22	186.3	-	-	-	-
Cerebrovascular Diseases	12	97.9	12	101.6	-	-	-	-
Accidents and Adverse Effects	5	*	5	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	48.9	6	50.8	-	-	-	-
Pneumonia and Influenza	8	65.3	8	67.7	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	1	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Delta County

POPULATION	
As of April 1, 1990:	37,780
Rank Among Counties:	41
Per Square Mile:	32.2

NATALITY	
Total Live Births:	468
Teenage Mothers:	58
Low Weight Births:	26
First Births:	174

MORTALITY	
Total Deaths:	384
Infant Deaths:	6
Neonatal Deaths:	4
Postneonatal Deaths:	2
Perinatal Deaths:	4
Fetal Deaths:	2

MARRIAGE	
Marriages:	347
Marriage Rate:	18.4

DIVORCE	
Divorces:	165
Divorce Rate:	8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	468	12.4	452	12.3	-	-	16	17.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	58	123.9	54	119.5	-	-	4	*
Low Weight	26	55.6	26	57.5	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	62	132.5	60	132.7	-	-	2	*
Prenatal Care Began in 1st Trimester	353	754.3	347	767.7	-	-	6	375.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	12.8	6	13.3	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	384	192	192	383	191	192	-	-	-	1	1	-
Mortality Rate	10.2	10.4	9.9	10.4	10.6	10.2	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	-	2	-	3	2	2	7	19	19	61	263	-
White Male	4	-	1	-	1	2	2	5	7	14	40	115	-
White Female	2	-	1	-	2	-	-	2	12	5	20	148	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	384	1,016.4	383	1,039.3	-	-	5	*
Diseases of the Heart	117	309.7	116	314.8	-	-	-	-
Malignant Neoplasms	112	296.5	112	303.9	-	-	1	*
Cerebrovascular Diseases	36	95.3	36	97.7	-	-	-	-
Accidents and Adverse Effects	13	34.4	13	35.3	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	34.4	13	35.3	-	-	-	-
Pneumonia and Influenza	14	37.1	14	38.0	-	-	-	-
Diabetes Mellitus	14	37.1	14	38.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	11	29.1	11	29.8	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Dickinson County

POPULATION	
As of April 1, 1990:	26,831
Rank Among Counties:	48
Per Square Mile:	34.8

NATALITY	
Total Live Births:	359
Teenage Mothers:	33
Low Weight Births:	19
First Births:	136

MORTALITY	
Total Deaths:	318
Infant Deaths:	4
Neonatal Deaths:	2
Postneonatal Deaths:	2
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE	
Marriages:	250
Marriage Rate:	18.6

DIVORCE	
Divorces:	121
Divorce Rate:	9.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	359	13.4	355	13.4	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	33	91.9	33	93.0	-	-	-	-
Low Weight	19	52.9	19	53.5	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	53	147.6	53	149.3	-	-	-	-
Prenatal Care Began in 1st Trimester	302	841.2	299	842.3	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	318	163	155	317	162	155	-	-	-	1	1	-
Mortality Rate	11.9	12.4	11.3	11.9	12.4	11.5	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	1	2	1	2	3	3	9	19	44	229	-
White Male	2	1	1	1	-	1	1	3	5	15	25	107	-
White Female	2	-	-	1	1	1	2	-	3	4	19	122	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	318	1,185.2	317	1,193.6	-	-	5	*
Diseases of the Heart	107	398.8	106	399.1	-	-	-	-
Malignant Neoplasms	72	268.3	72	271.1	-	-	1	*
Cerebrovascular Diseases	36	134.2	36	135.5	-	-	-	-
Accidents and Adverse Effects	15	55.9	15	56.5	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	59.6	16	60.2	-	-	-	-
Pneumonia and Influenza	8	29.8	8	30.1	-	-	-	-
Diabetes Mellitus	7	26.1	7	26.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	1	*
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Eaton County

POPULATION	
As of April 1, 1990:	92,879
Rank Among Counties:	19
Per Square Mile:	160.3

NATALITY	
Total Live Births:	1,172
Teenage Mothers:	130
Low Weight Births:	63
First Births:	492

MORTALITY	
Total Deaths:	629
Infant Deaths:	7
Neonatal Deaths:	3
Postneonatal Deaths:	4
Perinatal Deaths:	10
Fetal Deaths:	7

MARRIAGE	
Marriages:	770
Marriage Rate:	16.6

DIVORCE	
Divorces:	442
Divorce Rate:	9.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,172	12.6	1,126	12.7	35	10.5	6	5.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	130	110.9	120	106.6	10	285.7	-	-
Low Weight	63	53.8	62	55.1	1	*	-	-
Under 1,500 Grams	9	7.7	9	8.0	-	-	-	-
< 38 Weeks Gestation	166	141.6	160	142.1	6	171.4	-	-
Prenatal Care Began in 1st Trimester	976	832.8	941	835.7	26	742.9	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	6.0	6	5.3	1	*	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	4	*	3	*	1	*	-	-
Perinatal Deaths	10	8.5	10	8.8	-	-	-	-
Fetal Deaths	7	5.9	7	6.2	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	629	333	296	615	323	292	12	9	3	1	1	-
Mortality Rate	6.8	7.4	6.2	6.9	7.5	6.4	3.6	5.6	*	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	-	1	7	9	4	16	38	46	110	389	-
White Male	5	2	-	1	3	8	2	10	25	29	59	179	-
White Female	1	-	-	-	3	-	2	4	12	14	50	206	-
Black Male	1	-	-	-	1	1	-	1	1	2	1	1	-
Black Female	-	-	-	-	-	-	-	-	-	1	-	2	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	629	677.2	615	694.8	12	358.4	10	36.7
Diseases of the Heart	213	229.3	209	236.1	4	*	-	-
Malignant Neoplasms	164	176.6	160	180.8	4	*	1	*
Cerebrovascular Diseases	35	37.7	34	38.4	1	*	-	-
Accidents and Adverse Effects	34	36.6	32	36.2	1	*	8	29.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	22.6	21	23.7	-	-	-	-
Pneumonia and Influenza	20	21.5	20	22.6	-	-	-	-
Diabetes Mellitus	17	18.3	17	19.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	6.5	6	6.8	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	7	7.5	6	6.8	1	*	-	-
Atherosclerosis	8	8.6	8	9.0	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Emmet County

POPULATION

As of April 1, 1990:	25,040
Rank Among Counties:	51
Per Square Mile:	53.5

NATALITY

Total Live Births:	395
Teenage Mothers:	42
Low Weight Births:	19
First Births:	159

MORTALITY

Total Deaths:	239
Infant Deaths:	4
Neonatal Deaths:	4
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	-

MARRIAGE

Marriages:	283
Marriage Rate:	22.6

DIVORCE

Divorces:	149
Divorce Rate:	11.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	395	15.8	375	15.5	2	*	18	23.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	106.3	37	98.7	-	-	5	*
Low Weight	19	48.1	17	45.3	1	*	1	*
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	46	116.5	44	117.3	1	*	1	*
Prenatal Care Began in 1st Trimester	346	875.9	332	885.3	2	*	12	666.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	239	119	120	229	115	114	-	-	-	9	3	6
Mortality Rate	9.5	9.8	9.3	9.5	9.9	9.1	-	-	-	12.0	*	17.4

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	1	-	2	2	3	4	6	10	27	180	-
White Male	3	-	-	-	2	1	2	1	2	4	16	84	-
White Female	1	-	1	-	-	1	1	2	4	5	11	88	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	3	-
Other Female	-	-	-	-	-	-	-	1	-	1	-	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	239	954.5	229	948.0	-	-	3	*
Diseases of the Heart	69	275.6	68	281.5	-	-	-	-
Malignant Neoplasms	57	227.6	55	227.7	-	-	-	-
Cerebrovascular Diseases	18	71.9	16	66.2	-	-	-	-
Accidents and Adverse Effects	8	31.9	8	33.1	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	55.9	14	58.0	-	-	-	-
Pneumonia and Influenza	19	75.9	18	74.5	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	24.0	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	6	24.0	6	24.8	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Genesee County

POPULATION	
As of April 1, 1990:	430,459
Rank Among Counties:	5
Per Square Mile:	671.0

NATALITY	
Total Live Births:	7,513
Teenage Mothers:	1,182
Low Weight Births:	691
First Births:	2,917

MORTALITY	
Total Deaths:	3,590
Infant Deaths:	90
Neonatal Deaths:	59
Postneonatal Deaths:	31
Perinatal Deaths:	78
Fetal Deaths:	29

MARRIAGE	
Marriages:	3,622
Marriage Rate:	16.8

DIVORCE	
Divorces:	1,614
Divorce Rate:	7.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	7,513	17.5	5,247	15.5	2,204	26.0	57	9.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,182	157.3	622	118.5	552	250.5	7	122.8
Low Weight	691	92.0	359	68.4	327	148.4	3	*
Under 1,500 Grams	137	18.2	59	11.2	77	34.9	-	-
< 38 Weeks Gestation	1529	203.5	862	164.3	655	297.2	9	157.9
Prenatal Care Began in 1st Trimester	5,994	797.8	4,446	847.3	1,504	682.4	40	701.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	90	12.0	45	8.6	45	20.4	-	-
Neonatal Deaths	59	7.9	31	5.9	28	12.7	-	-
Postneonatal Deaths	31	4.1	14	2.7	17	7.7	-	-
Perinatal Deaths	76	10.1	42	8.0	33	14.9	1	*
Fetal Deaths	29	3.8	19	3.6	9	4.1	1	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	3,590	1,860	1,730	2,940	1,493	1,447	632	359	273	17	8	9
Mortality Rate	8.3	9.0	7.7	8.7	9.1	8.2	7.5	9.2	6.0	2.7	2.7	2.8

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	90	16	9	10	30	40	46	132	177	336	719	1,985	-
White Male	27	5	3	3	11	17	20	65	73	151	330	788	-
White Female	18	5	3	1	4	4	7	18	47	91	251	998	-
Black Male	26	4	-	3	14	17	12	23	34	52	74	100	-
Black Female	19	2	3	3	-	2	6	26	23	38	60	91	-
Other Male	-	-	-	-	-	-	1	-	-	2	1	4	-
Other Female	-	-	-	-	1	-	-	-	-	2	2	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,590	834.0	2,940	865.7	632	746.5	65	51.1
Diseases of the Heart	1,280	297.4	1,098	323.3	174	205.5	2	*
Malignant Neoplasms	832	193.3	691	203.5	140	165.4	1	*
Cerebrovascular Diseases	240	55.8	205	60.4	34	40.2	1	*
Accidents and Adverse Effects	151	35.1	107	31.5	44	52.0	27	21.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	157	36.5	143	42.1	11	13.0	-	-
Pneumonia and Influenza	89	20.7	79	23.3	10	11.8	1	*
Diabetes Mellitus	99	23.0	78	23.0	20	23.6	-	-
Chronic Liver Disease and Cirrhosis	46	10.7	32	9.4	14	16.5	-	-
Homicide	60	13.9	17	5.0	43	50.8	16	12.6
Suicide	50	11.6	44	13.0	6	7.1	1	*
Atherosclerosis	27	6.3	27	8.0	-	-	-	-
AIDS	26	6.0	16	4.7	10	11.8	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Gladwin County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	21,896	Total Live Births:	284	Total Deaths:	243
Rank Among Counties:	55	Teenage Mothers:	39	Infant Deaths:	2
Per Square Mile:	43.3	Low Weight Births:	16	Neonatal Deaths:	2
		First Births:	105	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	176	Divorces:	110		
Marriage Rate:	16.1	Divorce Rate:	10.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	284	13.0	282	13.0	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	39	137.3	39	138.3	-	-	-	-
Low Weight	16	56.3	16	56.7	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	43	151.4	43	152.5	-	-	-	-
Prenatal Care Began in 1st Trimester	207	728.9	205	727.0	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	243	145	98	242	144	98	-	-	-	1	1	-
Mortality Rate	11.1	13.4	8.8	11.1	13.5	8.9	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	1	-	1	3	1	8	9	17	43	158	-
White Male	1	-	-	-	-	2	1	7	6	11	27	89	-
White Female	1	-	1	-	1	1	-	1	3	6	16	68	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	243	1,109.8	242	1,114.1	-	-	2	*
Diseases of the Heart	88	401.9	88	405.1	-	-	-	-
Malignant Neoplasms	71	324.3	71	326.9	-	-	1	*
Cerebrovascular Diseases	13	59.4	13	59.8	-	-	-	-
Accidents and Adverse Effects	8	36.5	8	36.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	54.8	12	55.2	-	-	-	-
Pneumonia and Influenza	9	41.1	9	41.4	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	32.0	7	32.2	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Gogebic County

POPULATION

As of April 1, 1990:	18,052
Rank Among Counties:	63
Per Square Mile:	16.3

NATALITY

Total Live Births:	176
Teenage Mothers:	24
Low Weight Births:	9
First Births:	61

MORTALITY

Total Deaths:	285
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	1

MARRIAGE

Marriages:	145
Marriage Rate:	16.1

DIVORCE

Divorces:	39
Divorce Rate:	4.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	176	9.7	168	9.6	-	-	8	25.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	24	136.4	24	142.9	-	-	-	-
Low Weight	9	51.1	9	53.6	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	22	125.0	21	125.0	-	-	1	*
Prenatal Care Began in 1st Trimester	134	761.4	128	761.9	-	-	6	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	285	158	127	285	158	127	-	-	-	-	-	-
Mortality Rate	15.8	17.8	13.8	16.3	18.7	14.0	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	1	-	2	2	1	1	6	8	11	44	208	-
White Male	1	1	-	1	2	1	1	6	7	8	29	101	-
White Female	-	-	-	1	-	-	-	-	1	3	15	107	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	285	1,578.8	285	1,628.9	-	-	5	*
Diseases of the Heart	98	542.9	98	560.1	-	-	-	-
Malignant Neoplasms	72	398.8	72	411.5	-	-	-	-
Cerebrovascular Diseases	24	132.9	24	137.2	-	-	-	-
Accidents and Adverse Effects	14	77.6	14	80.0	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	38.8	7	40.0	-	-	-	-
Pneumonia and Influenza	11	60.9	11	62.9	-	-	-	-
Diabetes Mellitus	6	33.2	6	34.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Grand Traverse County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	64,273	Total Live Births:	953	Total Deaths:	513
Rank Among Counties:	27	Teenage Mothers:	84	Infant Deaths:	9
Per Square Mile:	137.9	Low Weight Births:	74	Neonatal Deaths:	7
		First Births:	394	Postneonatal Deaths:	2
				Perinatal Deaths:	7
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	726	Divorces:	365		
Marriage Rate:	22.6	Divorce Rate:	11.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	953	14.8	927	14.7	-	-	24	27.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	84	88.1	75	80.9	-	-	8	333.3
Low Weight	74	77.6	73	78.7	-	-	1	*
Under 1,500 Grams	11	11.5	10	10.8	-	-	1	*
< 38 Weeks Gestation	136	142.7	136	146.7	-	-	-	-
Prenatal Care Began in 1st Trimester	686	719.8	668	720.6	-	-	18	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	9.4	8	8.6	1	*	-	-
Neonatal Deaths	7	7.3	7	7.6	-	-	-	-
Postneonatal Deaths	2	*	1	*	1	*	-	-
Perinatal Deaths	7	7.3	7	7.5	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	513	245	268	508	241	267	1	1	-	4	3	1
Mortality Rate	8.0	7.8	8.1	8.0	7.9	8.2	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	9	5	2	3	2	5	8	9	18	40	73	339	-
White Male	5	4	1	2	1	5	5	5	11	28	45	129	-
White Female	3	1	1	1	1	-	3	4	6	12	27	208	-
Black Male	1	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	513	798.2	508	804.6	1	*	12	65.0
Diseases of the Heart	147	228.7	146	231.2	-	-	-	-
Malignant Neoplasms	119	185.1	118	186.9	-	-	3	*
Cerebrovascular Diseases	38	59.1	37	58.6	-	-	-	-
Accidents and Adverse Effects	27	42.0	27	42.8	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	27	42.0	26	41.2	-	-	-	-
Pneumonia and Influenza	15	23.3	15	23.8	-	-	-	-
Diabetes Mellitus	11	17.1	11	17.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	8	12.4	8	12.7	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: *Office of the State Registrar and Center for Health Statistics, MDPH*

Profile of Gratiot County

POPULATION
As of April 1, 1990: 38,982
Rank Among Counties: 39
Per Square Mile: 68.3

MARRIAGE
Marriages: 309
Marriage Rate: 15.9

NATALITY
Total Live Births: 612
Teenage Mothers: 74
Low Weight Births: 44
First Births: 234

DIVORCE
Divorces: 137
Divorce Rate: 7.0

MORTALITY
Total Deaths: 366
Infant Deaths: 5
Neonatal Deaths: 5
Postneonatal Deaths: -
Perinatal Deaths: 11
Fetal Deaths: 7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	612	15.7	607	15.8	1	*	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	74	120.9	74	121.9	-	-	-	-
Low Weight	44	71.9	43	70.8	1	*	-	-
Under 1,500 Grams	11	18.0	11	18.1	-	-	-	-
< 38 Weeks Gestation	85	138.9	83	136.7	1	*	1	*
Prenatal Care Began in 1st Trimester	491	802.3	489	805.6	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	11	17.8	11	17.9	-	-	-	-
Fetal Deaths	7	11.3	7	11.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	366	175	191	364	174	190	1	1	-	1	-	1
Mortality Rate	9.4	9.2	9.5	9.5	9.4	9.6	*	*	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	2	-	-	4	1	3	5	7	27	49	263	-
White Male	2	2	-	-	2	1	3	2	5	17	31	109	-
White Female	3	-	-	-	2	-	-	3	2	10	18	152	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	366	938.9	364	948.0	1	*	6	52.1
Diseases of the Heart	160	410.4	159	414.1	1	*	1	*
Malignant Neoplasms	63	161.6	63	164.1	-	-	2	*
Cerebrovascular Diseases	38	97.5	38	99.0	-	-	-	-
Accidents and Adverse Effects	9	23.1	9	23.4	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	41.0	16	41.7	-	-	-	-
Pneumonia and Influenza	24	61.6	24	62.5	-	-	-	-
Diabetes Mellitus	6	15.4	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Hillsdale County

POPULATION	
As of April 1, 1990:	43,431
Rank Among Counties:	36
Per Square Mile:	72.0

NATALITY	
Total Live Births:	596
Teenage Mothers:	104
Low Weight Births:	24
First Births:	211

MORTALITY	
Total Deaths:	359
Infant Deaths:	6
Neonatal Deaths:	5
Postneonatal Deaths:	1
Perinatal Deaths:	5
Fetal Deaths:	1

MARRIAGE	
Marriages:	339
Marriage Rate:	15.6

DIVORCE	
Divorces:	232
Divorce Rate:	10.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	596	13.7	588	13.7	1	*	6	23.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	104	174.5	102	173.5	-	-	2	*
Low Weight	24	40.3	24	40.8	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	76	127.5	76	129.3	-	-	-	-
Prenatal Care Began in 1st Trimester	362	607.4	357	607.1	1	*	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	10.1	6	10.2	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	359	193	166	359	193	166	-	-	-	-	-	-
Mortality Rate	8.3	9.1	7.5	8.3	9.1	7.6	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	2	2	2	3	6	15	24	79	219	-
White Male	4	1	-	1	2	1	1	5	9	17	50	102	-
White Female	2	-	-	1	-	1	2	1	6	7	29	117	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	359	826.6	359	833.8	-	-	5	*
Diseases of the Heart	106	244.1	106	246.2	-	-	-	-
Malignant Neoplasms	84	193.4	84	195.1	-	-	1	*
Cerebrovascular Diseases	25	57.6	25	58.1	-	-	-	-
Accidents and Adverse Effects	20	46.1	20	46.4	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	48.4	21	48.8	-	-	-	-
Pneumonia and Influenza	17	39.1	17	39.5	-	-	-	-
Diabetes Mellitus	12	27.6	12	27.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	8	18.4	8	18.6	-	-	2	*
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Houghton County

POPULATION
As of April 1, 1990: 35,446
Rank Among Counties: 43
Per Square Mile: 35.0

MARRIAGE
Marriages: 236
Marriage Rate: 13.3

NATALITY
Total Live Births: 438
Teenage Mothers: 46
Low Weight Births: 17
First Births: 154

DIVORCE
Divorces: 106
Divorce Rate: 6.0

MORTALITY
Total Deaths: 396
Infant Deaths: 2
Neonatal Deaths: 1
Postneonatal Deaths: 1
Perinatal Deaths: 3
Fetal Deaths: 3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	438	12.4	412	11.9	2	*	23	30.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	46	105.0	46	111.7	-	-	-	-
Low Weight	17	38.8	15	36.4	-	-	1	*
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	49	111.9	48	116.5	-	-	1	*
Prenatal Care Began in 1st Trimester	341	778.5	320	776.7	2	*	18	782.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	396	226	170	394	224	170	-	-	-	2	2	-
Mortality Rate	11.2	12.1	10.2	11.4	12.4	10.4	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	3	1	3	3	15	18	40	311	-
White Male	1	-	-	-	2	-	3	2	9	11	26	170	-
White Female	1	-	-	-	1	-	-	1	6	7	14	140	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	396	1,117.2	394	1,141.4	-	-	3	*
Diseases of the Heart	130	366.8	130	376.6	-	-	-	-
Malignant Neoplasms	82	231.3	82	237.5	-	-	-	-
Cerebrovascular Diseases	42	118.5	42	121.7	-	-	-	-
Accidents and Adverse Effects	16	45.1	15	43.5	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	33.9	12	34.8	-	-	-	-
Pneumonia and Influenza	33	93.1	33	95.6	-	-	-	-
Diabetes Mellitus	6	16.9	6	17.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	6	16.9	6	17.4	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Huron County

POPULATION

As of April 1, 1990:	34,951
Rank Among Counties:	44
Per Square Mile:	42.1

NATALITY

Total Live Births:	414
Teenage Mothers:	29
Low Weight Births:	18
First Births:	140

MORTALITY

Total Deaths:	413
Infant Deaths:	5
Neonatal Deaths:	3
Postneonatal Deaths:	2
Perinatal Deaths:	4
Fetal Deaths:	2

MARRIAGE

Marriages:	255
Marriage Rate:	14.6

DIVORCE

Divorces:	124
Divorce Rate:	7.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	414	11.8	412	11.8	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	29	70.0	29	70.4	-	-	-	-
Low Weight	18	43.5	18	43.7	-	-	-	-
Under 1,500 Grams	6	14.5	6	14.6	-	-	-	-
< 38 Weeks Gestation	58	140.1	58	140.8	-	-	-	-
Prenatal Care Began in 1st Trimester	344	830.9	342	830.1	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	4	*	2	*	-	-	1	*
Fetal Deaths	2	*	-	-	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	413	223	190	412	223	189	-	-	-	1	-	1
Mortality Rate	11.8	13.0	10.7	11.8	13.1	10.7	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	1	2	2	2	2	1	7	7	23	73	288	-
White Male	4	-	1	1	2	2	-	2	4	14	43	150	-
White Female	1	1	1	1	-	-	1	5	3	9	30	137	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	413	1,181.7	412	1,184.7	-	-	7	72.1
Diseases of the Heart	175	500.7	175	503.2	-	-	-	-
Malignant Neoplasms	86	246.1	86	247.3	-	-	-	-
Cerebrovascular Diseases	37	105.9	36	103.5	-	-	-	-
Accidents and Adverse Effects	14	40.1	14	40.3	-	-	6	61.8
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	57.2	20	57.5	-	-	-	-
Pneumonia and Influenza	11	31.5	11	31.6	-	-	-	-
Diabetes Mellitus	6	17.2	6	17.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	20.0	7	20.1	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Ingham County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	281,912	Total Live Births:	4,517	Total Deaths:	1,720
Rank Among Counties:	7	Teenage Mothers:	574	Infant Deaths:	32
Per Square Mile:	503.7	Low Weight Births:	323	Neonatal Deaths:	20
		First Births:	1,864	Postneonatal Deaths:	12
				Perinatal Deaths:	47
				Fetal Deaths:	32
MARRIAGE		**DIVORCE**			
Marriages:	2,594	Divorces:	1,411		
Marriage Rate:	18.4	Divorce Rate:	10.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,517	16.0	3,746	15.4	658	23.2	87	8.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	574	127.1	399	106.5	163	247.7	9	103.4
Low Weight	323	71.5	233	62.2	86	130.7	3	*
Under 1,500 Grams	64	14.2	42	11.2	21	31.9	1	*
< 38 Weeks Gestation	730	161.6	551	147.1	156	237.1	19	218.4
Prenatal Care Began in 1st Trimester	3,545	784.8	3,032	809.4	451	685.4	50	574.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	32	7.1	22	5.9	10	15.2	-	-
Neonatal Deaths	20	4.4	13	3.5	7	10.6	-	-
Postneonatal Deaths	12	2.7	9	2.4	3	*	-	-
Perinatal Deaths	47	10.3	30	8.0	17	25.4	-	-
Fetal Deaths	32	7.0	20	5.3	12	17.9	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,720	826	894	1,563	744	819	141	76	65	16	6	10
Mortality Rate	6.1	6.1	6.1	6.4	6.4	6.5	5.0	5.7	4.4	1.6	1.2	2.1

	Age In Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	32	10	3	4	20	19	18	64	73	138	294	1,045	-
White Male	15	3	-	3	7	8	9	38	33	71	150	407	-
White Female	7	6	2	1	6	7	6	15	28	49	114	578	-
Black Male	5	-	1	-	4	2	2	7	7	10	10	28	-
Black Female	5	1	-	-	2	2	-	2	4	7	17	25	-
Other Male	-	-	-	-	1	-	1	1	-	-	1	2	-
Other Female	-	-	-	-	-	-	-	1	1	1	2	5	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,720	610.1	1,563	641.2	141	498.0	37	45.4
Diseases of the Heart	546	193.7	514	210.9	24	84.8	-	-
Malignant Neoplasms	397	140.8	348	142.8	46	162.5	4	*
Cerebrovascular Diseases	97	34.4	83	34.1	13	45.9	-	-
Accidents and Adverse Effects	82	29.1	71	29.1	9	31.8	14	17.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	75	26.6	71	29.1	4	*	-	-
Pneumonia and Influenza	68	24.1	65	26.7	3	*	-	-
Diabetes Mellitus	36	12.8	34	13.9	2	*	-	-
Chronic Liver Disease and Cirrhosis	22	7.8	21	8.6	1	*	-	-
Homicide	16	5.7	8	3.3	8	28.3	5	*
Suicide	46	16.3	43	17.6	3	*	3	*
Atherosclerosis	20	7.1	19	7.8	1	*	-	-
AIDS	13	4.6	12	4.9	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Ionia County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	57,024	Total Live Births:	850	Total Deaths:	416
Rank Among Counties:	30	Teenage Mothers:	95	Infant Deaths:	14
Per Square Mile:	96.8	Low Weight Births:	48	Neonatal Deaths:	9
		First Births:	315	Postneonatal Deaths:	5
				Perinatal Deaths:	10
				Fetal Deaths:	4

MARRIAGE		DIVORCE	
Marriages:	479	Divorces:	253
Marriage Rate:	16.8	Divorce Rate:	8.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	850	14.9	839	15.6	1	*	10	28.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	95	111.8	94	112.0	-	-	1	*
Low Weight	48	56.5	46	54.8	-	-	2	*
Under 1,500 Grams	12	14.1	12	14.3	-	-	-	-
< 38 Weeks Gestation	125	147.1	122	145.4	-	-	3	*
Prenatal Care Began in 1st Trimester	655	770.6	648	772.3	1	*	6	600.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	14	16.5	14	16.7	-	-	-	-
Neonatal Deaths	9	10.6	9	10.7	-	-	-	-
Postneonatal Deaths	5	*	5	*	-	-	-	-
Perinatal Deaths	10	11.7	10	11.9	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	416	210	206	414	208	206	2	2	-	-	-	-
Mortality Rate	7.3	6.9	7.7	7.7	7.6	7.8	*	*	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	14	2	3	4	6	8	4	8	11	23	68	265	-
White Male	7	1	2	4	3	7	2	6	8	15	36	117	-
White Female	7	1	1	-	3	-	2	2	3	7	32	148	-
Black Male	-	-	-	-	-	1	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	416	729.5	414	771.5	2	*	15	85.8
Diseases of the Heart	130	228.0	130	242.3	-	-	-	-
Malignant Neoplasms	88	154.3	87	162.1	1	*	5	*
Cerebrovascular Diseases	26	45.6	26	48.5	-	-	-	-
Accidents and Adverse Effects	30	52.6	29	54.0	1	*	7	40.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	28.1	16	29.8	-	-	-	-
Pneumonia and Influenza	15	26.3	15	28.0	-	-	-	-
Diabetes Mellitus	21	36.8	21	39.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	3	*	3	*	-	-	-	-
Suicide	7	12.3	7	13.0	-	-	1	*
Atherosclerosis	7	12.3	7	13.0	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Iosco County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	30,209	Total Live Births:	543	Total Deaths:	323
Rank Among Counties:	47	Teenage Mothers:	61	Infant Deaths: -	2
Per Square Mile:	55.3	Low Weight Births:	24	Neonatal Deaths:	1
		First Births:	216	Postneonatal Deaths:	1
				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	311	Divorces:	185		
Marriage Rate:	20.6	Divorce Rate:	12.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	543	18.0	511	17.6	17	26.8	15	29.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	61	112.3	56	109.6	3	*	2	*
Low Weight	24	44.2	20	39.1	4	*	-	-
Under 1[illegible]0 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	62	114.2	55	107.6	4	*	3	*
Prenatal Care Began in 1st Trimester	432	795.6	411	804.3	11	647.1	10	666.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	323	171	152	317	169	148	1	-	1	5	2	3
Mortality Rate	10.7	11.3	10.1	10.9	11.6	10.2	*	-	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	1	-	1	2	2	7	6	15	71	214	-
White Male	1	2	-	-	1	-	2	4	2	9	40	108	-
White Female	1	-	1	-	-	1	-	3	4	6	29	103	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	1	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	323	1,069.2	317	1,090.4	1	*	4	*
Diseases of the Heart	109	360.8	108	371.5	-	-	-	-
Malignant Neoplasms	80	264.8	80	275.2	-	-	1	*
Cerebrovascular Diseases	19	62.9	19	65.4	-	-	-	-
Accidents and Adverse Effects	8	26.5	7	24.1	1	*	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	59.6	18	61.9	-	-	-	-
Pneumonia and Influenza	12	39.7	12	41.3	-	-	-	-
Diabetes Mellitus	8	26.5	7	24.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	19.9	6	20.6	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	7	23.2	7	24.1	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Iron County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	13,175	Total Live Births:	125	Total Deaths:	213
Rank Among Counties:	69	Teenage Mothers:	22	Infant Deaths:	2
Per Square Mile:	11.3	Low Weight Births:	8	Neonatal Deaths:	1
		First Births:	43	Postneonatal Deaths:	1
				Perinatal Deaths:	3
				Fetal Deaths:	2

MARRIAGE		DIVORCE	
Marriages:	100	Divorces:	50
Marriage Rate:	15.2	Divorce Rate:	7.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	125	9.5	123	9.4	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	22	176.0	21	170.7	-	-	1	*
Low Weight	8	64.0	8	65.0	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	25	200.0	25	203.3	-	-	-	-
Prenatal Care Began in 1st Trimester	99	792.0	98	796.7	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	3	*	2	*	-	-	-	-
Fetal Deaths	2	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	213	119	94	212	119	93	1	-	1	-	-	-
Mortality Rate	16.2	18.8	13.7	16.3	19.0	13.7	*	-	*	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	1	-	1	2	5	10	32	160	-
White Male	1	-	-	-	1	-	1	2	4	5	22	83	-
White Female	1	-	-	-	-	-	-	-	1	5	10	76	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	213	1,616.7	212	1,626.1	1	*	1	*
Diseases of the Heart	70	531.3	70	536.9	-	-	-	-
Malignant Neoplasms	54	409.9	54	414.2	-	-	-	-
Cerebrovascular Diseases	16	121.4	16	122.7	-	-	-	-
Accidents and Adverse Effects	9	68.3	8	61.4	1	*	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	11	83.5	11	84.4	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	7	53.1	7	53.7	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Isabella County

POPULATION

As of April 1, 1990:	54,624
Rank Among Counties:	32
Per Square Mile:	94.7

NATALITY

Total Live Births:	702
Teenage Mothers:	74
Low Weight Births:	37
First Births:	259

MORTALITY

Total Deaths:	327
Infant Deaths:	5
Neonatal Deaths:	2
Postneonatal Deaths:	3
Perinatal Deaths:	5
Fetal Deaths:	3

MARRIAGE

Marriages:	415
Marriage Rate:	15.2

DIVORCE

Divorces:	195
Divorce Rate:	7.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	702	12.9	666	12.7	4	*	28	18.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	74	105.4	66	99.1	-	-	7	250.0
Low Weight	37	52.7	35	52.6	-	-	2	*
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	92	131.1	87	130.6	-	-	5	*
Prenatal Care Began in 1st Trimester	557	793.4	537	806.3	2	*	14	500.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	327	175	152	318	168	150	1	1	-	8	6	2
Mortality Rate	6.0	6.7	5.3	6.1	6.7	5.5	*	*	-	5.3	8.1	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	1	2	-	3	2	3	14	18	26	57	196	-
White Male	3	-	1	-	1	1	1	8	12	16	33	92	-
White Female	2	1	1	-	2	-	2	5	6	9	22	100	-
Black Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	1	1	3	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	327	598.6	318	605.9	1	*	6	35.6
Diseases of the Heart	98	179.4	95	181.0	-	-	-	-
Malignant Neoplasms	84	153.8	83	158.2	1	*	1	*
Cerebrovascular Diseases	29	53.1	29	55.3	-	-	-	-
Accidents and Adverse Effects	12	22.0	12	22.9	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	14.6	8	15.2	-	-	-	-
Pneumonia and Influenza	17	31.1	17	32.4	-	-	-	-
Diabetes Mellitus	14	25.6	13	24.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	1	*
Suicide	7	12.8	7	13.3	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Jackson County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	149,756	Total Live Births:	2,262	Total Deaths:	1,380
Rank Among Counties:	13	Teenage Mothers:	323	Infant Deaths:	16
Per Square Mile:	212.5	Low Weight Births:	156	Neonatal Deaths:	11
		First Births:	864	Postneonatal Deaths:	5
				Perinatal Deaths:	17
				Fetal Deaths:	8
MARRIAGE		**DIVORCE**			
Marriages:	1,281	Divorces:	730		
Marriage Rate:	17.1	Divorce Rate:	9.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,262	15.1	2,036	14.9	206	17.1	19	14.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	323	142.8	259	127.2	61	296.1	3	*
Low Weight	156	69.0	133	65.3	22	106.8	1	*
Under 1,500 Grams	28	12.4	23	11.3	5	*	-	-
< 38 Weeks Gestation	358	158.3	306	150.3	47	228.2	5	*
Prenatal Care Began in 1st Trimester	1,558	688.8	1,447	710.7	100	485.4	11	578.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	16	7.1	14	6.9	2	*	-	-
Neonatal Deaths	11	4.9	10	4.9	1	*	-	-
Postneonatal Deaths	5	*	4	*	1	*	-	-
Perinatal Deaths	17	7.5	15	7.3	2	*	-	-
Fetal Deaths	8	3.5	7	3.4	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,380	689	691	1,286	636	650	86	48	38	6	3	3
Mortality Rate	9.2	9.1	9.4	9.4	9.4	9.5	7.1	6.1	9.0	4.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	16	6	-	4	14	8	12	46	52	102	238	882	-
White Male	10	2	-	4	11	5	7	29	20	53	134	361	-
White Female	4	3	-	-	1	2	2	11	21	39	87	480	-
Black Male	-	-	-	-	2	1	2	4	9	10	9	11	-
Black Female	2	1	-	-	-	-	1	1	2	-	6	25	-
Other Male	-	-	-	-	-	-	-	-	-	-	2	1	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,380	921.5	1,286	943.1	86	713.2	24	59.2
Diseases of the Heart	448	299.2	426	312.4	20	165.9	-	-
Malignant Neoplasms	349	233.0	327	239.8	21	174.1	2	*
Cerebrovascular Diseases	82	54.8	75	55.0	6	49.8	-	-
Accidents and Adverse Effects	62	41.4	62	45.5	-	-	15	37.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	80	53.4	78	57.2	1	*	-	-
Pneumonia and Influenza	80	53.4	74	54.3	5	*	-	-
Diabetes Mellitus	31	20.7	29	21.3	2	*	-	-
Chronic Liver Disease and Cirrhosis	12	8.0	9	6.6	2	*	-	-
Homicide	17	11.4	7	5.1	10	82.9	2	*
Suicide	31	20.7	30	22.0	1	*	4	*
Atherosclerosis	13	8.7	12	8.8	-		-	-
AIDS	7	4.7	4	*	3	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Kalamazoo County

POPULATION	
As of April 1, 1990:	223,411
Rank Among Counties:	8
Per Square Mile:	397.5

NATALITY	
Total Live Births:	3,409
Teenage Mothers:	407
Low Weight Births:	232
First Births:	1,380

MORTALITY	
Total Deaths:	1,602
Infant Deaths:	39
Neonatal Deaths:	22
Postneonatal Deaths:	17
Perinatal Deaths:	48
Fetal Deaths:	27

MARRIAGE	
Marriages:	2,053
Marriage Rate:	18.4

DIVORCE	
Divorces:	1,053
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,409	15.3	2,775	13.9	568	28.3	65	15.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	407	119.4	249	89.7	151	265.8	7	107.7
Low Weight	232	68.1	156	56.2	72	126.8	4	*
Under 1,500 Grams	59	17.3	40	14.4	19	33.5	-	-
< 38 Weeks Gestation	561	164.6	418	150.6	131	230.6	12	184.6
Prenatal Care Began in 1st Trimester	2,729	800.5	2,355	848.6	324	570.4	50	769.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	39	11.4	22	7.9	17	29.9	-	-
Neonatal Deaths	22	6.5	12	4.3	10	17.6	-	-
Postneonatal Deaths	17	5.0	10	3.6	7	12.3	-	-
Perinatal Deaths	48	14.0	29	10.4	18	31.3	1	*
Fetal Deaths	27	7.9	18	6.4	8	13.9	1	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,602	761	841	1,462	683	779	131	72	59	9	6	3
Mortality Rate	7.2	7.1	7.3	7.3	7.1	7.5	6.5	7.6	5.6	2.1	2.8	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	39	10	4	4	5	11	18	58	75	126	246	1,006	-
White Male	14	3	3	2	2	5	6	28	40	57	128	395	-
White Female	8	7	1	1	2	2	8	23	15	57	95	560	-
Black Male	12	-	-	-	1	1	2	3	11	7	15	20	-
Black Female	5	-	-	1	-	2	2	3	8	4	5	29	-
Other Male	-	-	-	-	-	1	-	1	-	1	3	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,602	717.1	1,462	734.5	131	652.2	23	37.2
Diseases of the Heart	512	229.2	472	237.1	39	194.2	-	-
Malignant Neoplasms	402	179.9	379	190.4	21	104.6	4	*
Cerebrovascular Diseases	121	54.2	109	54.8	11	54.8	-	-
Accidents and Adverse Effects	53	23.7	48	24.1	4	*	8	12.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	54	24.2	51	25.6	2	*	-	-
Pneumonia and Influenza	62	27.8	56	28.1	6	29.9	1	*
Diabetes Mellitus	38	17.0	33	16.6	5	*	-	-
Chronic Liver Disease and Cirrhosis	17	7.6	16	8.0	1	*	-	-
Homicide	15	6.7	8	4.0	7	34.9	1	*
Suicide	26	11.6	26	13.1	-	-	2	*
Atherosclerosis	15	6.7	15	7.5	-	-	-	-
AIDS	10	4.5	9	4.5	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Kalkaska County

POPULATION

As of April 1, 1990:	13,497
Rank Among Counties:	68
Per Square Mile:	24.0

NATALITY

Total Live Births:	213
Teenage Mothers:	32
Low Weight Births:	16
First Births:	81

MORTALITY

Total Deaths:	119
Infant Deaths:	1
Neonatal Deaths:	-
Postneonatal Deaths:	1
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	117
Marriage Rate:	17.3

DIVORCE

Divorces:	80
Divorce Rate:	11.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	213	15.8	208	15.6	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	32	150.2	32	153.8	-	-	-	-
Low Weight	16	75.1	16	76.9	-	-	-	-
Under 1,500 Grams	1	*	1	*	- -	-	-	-
< 38 Weeks Gestation	33	154.9	33	158.7	-	-	-	-
Prenatal Care Began in 1st Trimester	139	652.6	135	649.0	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	119	68	51	116	67	49	1	-	1	2	1	1
Mortality Rate	8.8	10.0	7.6	8.7	10.0	7.4	*	-	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	1	-	1	1	1	-	4	7	13	23	67	-
White Male	1	1	-	1	1	-	-	3	5	5	14	36	-
White Female	-	-	-	-	-	1	-	1	2	7	9	29	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	119	881.7	116	869.1	1	*	3	*
Diseases of the Heart	39	289.0	38	284.7	-	-	-	-
Malignant Neoplasms	27	200.0	26	194.8	-	-	-	-
Cerebrovascular Diseases	8	59.3	7	52.4	1	*	-	-
Accidents and Adverse Effects	2	*	2	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	3	*	3	*	-	-	1	*
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	1	*
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Kent County

POPULATION	
As of April 1, 1990:	500,631
Rank Among Counties:	4
Per Square Mile:	580.9

NATALITY	
Total Live Births:	9,432
Teenage Mothers:	1,095
Low Weight Births:	601
First Births:	3,610

MORTALITY	
Total Deaths:	3,762
Infant Deaths:	98
Neonatal Deaths:	56
Postneonatal Deaths:	42
Perinatal Deaths:	110
Fetal Deaths:	60

MARRIAGE	
Marriages:	4,901
Marriage Rate:	19.6

DIVORCE	
Divorces:	2,358
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,432	18.8	8,156	18.1	1,135	27.4	138	16.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,095	116.1	752	92.2	326	287.2	17	123.2
Low Weight	601	63.7	429	52.6	164	144.5	7	50.7
Under 1,500 Grams	104	11.0	75	9.2	29	25.6	-	-
< 38 Weeks Gestation	1,358	144.0	1,030	126.3	309	272.2	19	137.7
Prenatal Care Began in 1st Trimester	7,338	778.0	6,664	817.1	591	520.7	82	594.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	98	10.4	68	8.3	29	25.6	1	*
Neonatal Deaths	56	5.9	37	4.5	19	16.7	-	--
Postneonatal Deaths	42	4.5	31	3.8	10	8.8	1	*
Perinatal Deaths	110	11.6	74	9.0	30	26.1	2	*
Fetal Deaths	60	6.3	41	5.0	13	11.3	2	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	3,762	1,902	1,860	3,464	1,736	1,728	268	150	118	28	15	13
Mortality Rate	7.5	7.8	7.2	7.7	7.9	7.4	6.5	7.6	5.5	3.2	3.6	2.9

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	98	12	10	5	25	33	34	99	144	266	640	2,396	-
White Male	44	6	6	1	15	20	12	54	84	140	340	1,014	-
White Female	24	4	2	1	3	5	15	25	42	86	249	1,272	-
Black Male	20	-	1	3	6	5	7	12	8	20	26	42	-
Black Female	9	1	-	-	-	1	-	6	6	14	22	59	-
Other Male	1	1	1	-	-	2	-	2	2	3	-	3	-
Other Female	-	-	-	-	1	-	-	-	2	2	2	6	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,762	751.5	3,464	768.7	268	648.0	52	35.2
Diseases of the Heart	1,256	250.9	1,184	262.7	68	164.4	1	*
Malignant Neoplasms	918	183.4	856	190.0	52	125.7	6	4.1
Cerebrovascular Diseases	208	41.5	199	44.2	9	21.8	-	-
Accidents and Adverse Effects	154	30.8	139	30.8	13	31.4	25	16.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	163	32.6	154	34.2	8	19.3	-	-
Pneumonia and Influenza	155	31.0	141	31.3	12	29.0	1	*
Diabetes Mellitus	68	13.6	61	13.5	7	16.9	-	-
Chronic Liver Disease and Cirrhosis	26	5.2	21	4.7	5	*	-	-
Homicide	29	5.8	16	3.6	12	29.0	5	*
Suicide	56	11.2	[illegible]	12.0	1	*	6	4.1
Atherosclerosis	35	7.0	34	7.5	1	*	-	-
AIDS	23	4.6	18	4.0	5	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Keweenaw County

POPULATION	
As of April 1, 1990:	1,701
Rank Among Counties:	83
Per Square Mile:	3.1

NATALITY	
Total Live Births:	16
Teenage Mothers:	-
Low Weight Births:	3
First Births:	3

MORTALITY	
Total Deaths:	30
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE	
Marriages:	13
Marriage Rate:	15.3

DIVORCE	
Divorces:	8
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	16	9.4	16	9.5	-	-	-	-

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	-	-	-	-	-	-	-	-
Low Weight	3	*	3	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	5	*	5	*	-	-	-	-
Prenatal Care Began in 1st Trimester	14	875.0	14	875.0	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	30	22	8	30	22	8	-	-	-	-	-	-
Mortality Rate	17.6	26.3	9.2	17.8	26.4	9.3	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	-	1	-	1	3	25	-
White Male	-	-	-	-	-	-	-	1	-	1	3	17	-
White Female	-	-	-	-	-	-	-	-	-	-	-	8	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	30	1,763.7	30	1,775.1	-	-	-	-
Diseases of the Heart	15	881.8	15	887.6	-	-	-	-
Malignant Neoplasms	4	*	4	*	-	-	-	-
Cerebrovascular Diseases	1	*	1	*	-	-	-	-
Accidents and Adverse Effects	1	*	1	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	*	2	*	-	-	-	-
Pneumonia and Influenza	2	*	2	*	-	-	-	-
Diabetes Mellitus	-	-	-	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Lake County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,583	Total Live Births:	109	Total Deaths:	136
Rank Among Counties:	78	Teenage Mothers:	21	Infant Deaths:	3
Per Square Mile:	15.1	Low Weight Births:	4	Neonatal Deaths:	1
		First Births:	35	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	1

MARRIAGE		DIVORCE	
Marriages:	59	Divorces:	38
Marriage Rate:	13.7	Divorce Rate:	8.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	109	12.7	96	13.1	13	11.3	-	-

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	21	192.7	15	156.3	6	461.5	-	-
Low Weight	4	*	4	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	17	156.0	14	145.8	3	*	-	-
Prenatal Care Began in 1st Trimester	53	486.2	49	510.4	4	*	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	136	77	59	107	64	43	27	12	15	2	1	1
Mortality Rate	15.8	18.4	13.4	14.6	17.6	11.6	23.6	23.3	23.8	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	-	-	-	3	2	4	14	22	88	-
White Male	2	-	-	-	-	-	1	1	3	5	9	43	-
White Female	1	-	-	-	-	-	1	1	-	7	10	23	-
Black Male	-	-	-	-	-	-	-	-	1	-	2	9	-
Black Female	-	-	-	-	-	-	1	-	-	2	1	11	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	136	1,584.5	107	1,456.4	27	2,356.0	-	-
Diseases of the Heart	46	535.9	37	503.6	8	698.1	-	-
Malignant Neoplasms	46	535.9	34	462.8	12	1,047.1	-	-
Cerebrovascular Diseases	5	*	5	*	-	-	-	-
Accidents and Adverse Effects	4	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	81.6	7	95.3	-	-	-	-
Pneumonia and Influenza	4	*	2	*	2	*	-	-
Diabetes Mellitus	3	*	2	*	1	*	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	-	-	1	*	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Lapeer County

POPULATION	
As of April 1, 1990:	74,768
Rank Among Counties:	23
Per Square Mile:	113.6

NATALITY	
Total Live Births:	1,124
Teenage Mothers:	143
Low Weight Births:	67
First Births:	458

MORTALITY	
Total Deaths:	529
Infant Deaths:	16
Neonatal Deaths:	15
Postneonatal Deaths:	1
Perinatal Deaths:	17
Fetal Deaths:	4

MARRIAGE	
Marriages:	619
Marriage Rate:	16.6

DIVORCE	
Divorces:	343
Divorce Rate:	9.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,124	15.0	1,118	15.2	1	*	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	143	127.2	143	127.9	-	-	-	-
Low Weight	67	59.6	67	59.9	-	-	-	-
Under 1,500 Grams	19	16.9	19	17.0	-	-	-	-
< 38 Weeks Gestation	175	155.7	175	156.5	-	-	-	-
Prenatal Care Began in 1st Trimester	895	796.3	891	797.0	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	16	14.2	16	14.3	-	-	-	-
Neonatal Deaths	15	13.3	15	13.4	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	17	15.1	17	15.2	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	529	274	255	526	272	254	1	1	-	2	1	1
Mortality Rate	7.1	7.3	6.8	7.1	7.4	6.9	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	16	-	1	2	7	6	4	17	24	45	97	310	-
White Male	8	-	-	2	6	4	4	12	15	25	62	134	-
White Female	8	-	1	-	1	2	-	5	9	20	35	173	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	529	707.5	526	714.0	1	*	10	42.7
Diseases of the Heart	166	222.0	166	225.3	-	-	2	*
Malignant Neoplasms	134	179.2	132	179.2	1	*	1	*
Cerebrovascular Diseases	40	53.5	39	52.9	-	-	-	-
Accidents and Adverse Effects	25	33.4	25	33.9	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	27	36.1	27	36.6	-	-	-	-
Pneumonia and Influenza	21	28.1	21	28.5	-	-	-	-
Diabetes Mellitus	14	18.7	14	19.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	9	12.0	9	12.2	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	10	13.4	10	13.6	-	-	2	*
Atherosclerosis	6	8.0	6	8.1	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Leelanau County

POPULATION

As of April 1, 1990:	16,527
Rank Among Counties:	65
Per Square Mile:	48.4

NATALITY

Total Live Births:	209
Teenage Mothers:	10
Low Weight Births:	16
First Births:	85

MORTALITY

Total Deaths:	161
Infant Deaths:	4
Neonatal Deaths:	3
Postneonatal Deaths:	1
Perinatal Deaths:	3
Fetal Deaths:	1

MARRIAGE

Marriages:	142
Marriage Rate:	17.2

DIVORCE

Divorces:	68
Divorce Rate:	8.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	209	12.6	196	12.2	-	-	12	23.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	10	47.8	9	45.9	-	-	1	*
Low Weight	16	76.6	15	76.5	-	-	1	*
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	23	110.0	20	102.0	-	-	3	*
Prenatal Care Began in 1st Trimester	151	722.5	147	750.0	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	3	*	-	-	1	*
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	1	*	-	-	-	-	1	*
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	161	78	83	156	75	81	-	-	-	5	3	2
Mortality Rate	9.7	9.5	10.0	9.7	9.4	10.1	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	-	-	2	1	1	5	7	18	20	102	-
White Male	1	-	-	-	1	-	1	2	4	8	9	49	-
White Female	2	1	-	-	1	1	-	3	3	6	11	53	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	3	-	-	-
Other Female	1	-	-	-	-	-	-	-	-	1	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	161	974.2	156	974.5	-	-	3	*
Diseases of the Heart	46	278.3	46	287.4	-	-	-	-
Malignant Neoplasms	45	272.3	44	274.9	-	-	1	*
Cerebrovascular Diseases	12	72.6	12	75.0	-	-	-	-
Accidents and Adverse Effects	5	*	4	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*	4	*	-	-	-	-
Pneumonia and Influenza	3	*	2	*	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	4	*	-	-	-	-
Homicide	1	*	1	*	-	-	1	*
Suicide	2	*	2	*	-	-	1	*
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Lenawee County

POPULATION

As of April 1, 1990:	91,476
Rank Among Counties:	20
Per Square Mile:	121.6

NATALITY

Total Live Births:	1,362
Teenage Mothers:	212
Low Weight Births:	102
First Births:	554

MORTALITY

Total Deaths:	733
Infant Deaths:	8
Neonatal Deaths:	5
Postneonatal Deaths:	3
Perinatal Deaths:	11
Fetal Deaths:	6

MARRIAGE

Marriages:	665
Marriage Rate:	14.5

DIVORCE

Divorces:	424
Divorce Rate:	9.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,362	14.9	1,334	15.0	10	6.8	14	16.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	212	155.7	206	154.4	4	*	2	*
Low Weight	102	74.9	99	74.2	1	*	1	*
Under 1,500 Grams	14	10.3	14	10.5	-	-	-	-
< 38 Weeks Gestation	220	161.5	216	161.9	2	*	2	*
Prenatal Care Began in 1st Trimester	1,117	820.1	1,095	820.8	8	800.0	12	857.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	5.9	8	6.0	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	11	8.0	10	7.5	1	*	-	-
Fetal Deaths	6	4.4	5	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	733	358	375	724	351	373	5	4	1	3	2	1
Mortality Rate	8.0	7.9	8.1	8.1	8.0	8.2	*	*	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	1	-	-	6	3	7	10	31	45	141	481	-
White Male	2	-	-	-	3	3	7	5	15	23	80	213	-
White Female	6	-	-	-	3	-	-	5	15	22	59	263	-
Black Male	-	1	-	-	-	-	-	-	1	-	-	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	733	801.3	724	812.0	5	*	7	25.4
Diseases of the Heart	243	265.6	243	272.5	-	-	1	*
Malignant Neoplasms	193	211.0	190	213.1	1	*	-	-
Cerebrovascular Diseases	52	56.8	51	57.2	-	-	-	-
Accidents and Adverse Effects	28	30.6	27	30.3	1	*	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	34	37.2	34	38.1	-	-	-	-
Pneumonia and Influenza	35	38.3	35	39.3	-	-	-	-
Diabetes Mellitus	23	25.1	21	23.6	2	*	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	7	7.7	7	7.9	-	-	1	*
Atherosclerosis	10	10.9	10	11.2	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Livingston County

POPULATION

As of April 1, 1990:	115,645
Rank Among Counties:	17
Per Square Mile:	201.4

NATALITY

Total Live Births:	1,638
Teenage Mothers:	102
Low Weight Births:	88
First Births:	642

MORTALITY

Total Deaths:	675
Infant Deaths:	8
Neonatal Deaths:	7
Postneonatal Deaths:	1
Perinatal Deaths:	10
Fetal Deaths:	5

MARRIAGE

Marriages:	865
Marriage Rate:	15.0

DIVORCE

Divorces:	542
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,636	14.1	1,612	14.2	2	*	21	17.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	102	62.3	100	62.0	-	-	2	*
Low Weight	88	53.8	86	53.3	-	-	2	*
Under 1,500 Grams	8	4.9	8	5.0	-	-	-	-
< 38 Weeks Gestation	242	147.9	240	148.9	1	*	1	*
Prenatal Care Began in 1st Trimester	1,354	827.6	1,340	831.3	2	*	12	571.4

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	4.9	8	5.0	-	-	-	-
Neonatal Deaths	7	4.3	7	4.3	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	10	6.1	10	6.2	-	-	-	-
Fetal Deaths	5	*	5	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	675	350	325	672	347	325	1	1	-	2	2	-
Mortality Rate	5.8	6.0	5.7	5.9	6.1	5.7	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	5	-	5	7	4	7	20	49	50	120	400	-
White Male	3	1	-	4	1	3	4	14	29	30	80	178	-
White Female	5	4	-	-	6	1	3	6	20	20	38	222	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	1	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	675	583.7	672	590.6	1	*	17	48.7
Diseases of the Heart	241	208.4	240	210.9	1	*	-	-
Malignant Neoplasms	168	145.3	167	146.8	-	-	2	*
Cerebrovascular Diseases	57	49.3	57	50.1	-	-	-	-
Accidents and Adverse Effects	38	32.9	37	32.5	-	-	10	28.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	27	23.3	27	23.7	-	-	-	-
Pneumonia and Influenza	16	13.8	16	14.1	-	-	-	-
Diabetes Mellitus	15	13.0	15	13.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	6.1	7	6.2	-	-	-	-
Homicide	4	*	4	*	-	-	-	-
Suicide	6	5.2	6	5.3	-	-	1	*
Atherosclerosis	6	5.2	6	5.3	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Luce County

POPULATION
As of April 1, 1990: 5,763
Rank Among Counties: 82
Per Square Mile: 6.4

NATALITY
Total Live Births: 58
Teenage Mothers: 13
Low Weight Births: 9
First Births: 26

MORTALITY
Total Deaths: 65
Infant Deaths: -
Neonatal Deaths: -
Postneonatal Deaths: -
Perinatal Deaths: -
Fetal Deaths: -

MARRIAGE
Marriages: 65
Marriage Rate: 22.6

DIVORCE
Divorces: 21
Divorce Rate: 7.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	58	10.1	57	10.5	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	13	224.1	12	210.5	-	-	1	*
Low Weight	9	155.2	8	140.4	-	-	1	*
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	4	*	3	*	-	-	1	*
Prenatal Care Began in 1st Trimester	48	827.6	47	824.6	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	65	34	31	63	33	30	-	-	-	2	1	1
Mortality Rate	11.3	12.0	10.6	11.6	12.5	10.8	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	1	-	1	4	2	7	50	-
White Male	-	-	-	-	-	1	-	-	3	1	4	24	-
White Female	-	-	-	-	-	-	-	1	1	1	2	25	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	65	1,127.9	63	1,161.5	-	-	-	-
Diseases of the Heart	19	329.7	19	350.3	-	-	-	-
Malignant Neoplasms	13	225.6	12	221.2	-	-	-	-
Cerebrovascular Diseases	5	*	5	*	-	-	-	-
Accidents and Adverse Effects	4	*	4	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*	4	*	-	-	-	-
Pneumonia and Influenza	3	*	3	*	-	-	-	-
Diabetes Mellitus	2	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Mackinac County

POPULATION

As of April 1, 1990:	10,674
Rank Among Counties:	73
Per Square Mile:	10.4

NATALITY

Total Live Births:	123
Teenage Mothers:	17
Low Weight Births:	3
First Births:	48

MORTALITY

Total Deaths:	123
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	1
Fetal Deaths:	1

MARRIAGE

Marriages:	210
Marriage Rate:	39.3

DIVORCE

Divorces:	35
Divorce Rate:	6.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	123	11.5	102	11.4	-	-	21	12.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	17	138.2	14	137.3	-	-	3	*
Low Weight	3	*	3	*	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	14	113.8	11	107.8	-	-	3	*
Prenatal Care Began in 1st Trimester	102	829.3	87	852.9	-	-	15	714.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	123	66	57	116	64	52	-	-	-	7	2	5
Mortality Rate	11.5	12.5	10.6	12.9	14.5	11.4	-	-	-	4.1	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	2	3	3	8	21	86	-
White Male	-	-	-	-	-	-	1	3	2	6	9	43	-
White Female	-	-	-	-	-	-	-	-	-	2	11	39	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	1	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,152.3	116	1,293.6	-	-	-	-
Diseases of the Heart	36	337.3	34	379.2	-	-	-	-
Malignant Neoplasms	35	327.9	33	368.0	-	-	-	-
Cerebrovascular Diseases	7	65.6	7	78.1	-	-	-	-
Accidents and Adverse Effects	6	56.2	6	66.9	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	84.3	7	78.1	-	-	-	-
Pneumonia and Influenza	8	74.9	8	89.2	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	2	*	1	*	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Macomb County

POPULATION
As of April 1, 1990: 717,400
Rank Among Counties: 3
Per Square Mile: 1,487.1

NATALITY
Total Live Births: 10,288
Teenage Mothers: 648
Low Weight Births: 610
First Births: 4,338

MORTALITY
Total Deaths: 5,966
Infant Deaths: 69
Neonatal Deaths: 46
Postneonatal Deaths: 23
Perinatal Deaths: 75
Fetal Deaths: 35

MARRIAGE
Marriages: 6,353
Marriage Rate: 17.7

DIVORCE
Divorces: 3,010
Divorce Rate: 8.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	10,288	14.3	9,818	14.1	221	21.1	190	16.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	648	63.0	588	59.9	44	199.1	12	63.2
Low Weight	610	59.3	558	56.8	35	158.4	12	63.2
Under 1,500 Grams	113	11.0	102	10.4	7	31.7	2	*
< 38 Weeks Gestation	1,573	152.9	1,495	152.3	47	212.7	25	131.6
Prenatal Care Began in 1st Trimester	8,981	873.0	8,641	880.1	147	665.2	155	815.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	69	6.7	67	6.8	1	*	-	-
Neonatal Deaths	46	4.5	45	4.6	1	*	-	-
Postneonatal Deaths	23	2.2	22	2.2	-	-	-	-
Perinatal Deaths	75	7.3	70	7.1	1	*	2	*
Fetal Deaths	35	3.4	31	3.1	-	-	2	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	5,966	3,012	2,954	5,862	2,954	2,908	71	42	29	32	15	17
Mortality Rate	8.3	8.6	8.0	8.4	8.7	8.1	6.8	8.1	5.5	2.7	2.7	2.8

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	69	11	10	6	28	34	36	151	232	445	1,165	3,779	-
White Male	41	6	5	5	16	26	19	81	139	263	694	1,659	-
White Female	26	5	5	1	9	6	15	64	84	172	448	2,073	-
Black Male	1	-	-	-	2	-	-	4	4	5	7	19	-
Black Female	-	-	-	-	1	1	1	-	1	2	9	14	-
Other Male	-	-	-	-	-	-	-	-	2	3	4	6	-
Other Female	-	-	-	-	-	1	1	2	2	-	3	8	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	5,966	831.6	5,862	843.3	71	679.4	55	30.2
Diseases of the Heart	2,172	302.8	2,146	308.7	22	210.5	1	*
Malignant Neoplasms	1,572	219.1	1,543	222.0	18	172.2	6	3.3
Cerebrovascular Diseases	402	56.0	389	56.0	9	86.1	-	-
Accidents and Adverse Effects	148	20.6	144	20.7	3	*	15	8.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	214	29.8	213	30.6	1	*	1	*
Pneumonia and Influenza	238	33.2	232	33.4	2	*	1	*
Diabetes Mellitus	156	21.7	153	22.0	3	*	-	-
Chronic Liver Disease and Cirrhosis	81	11.3	79	11.4	2	*	-	-
Homicide	29	4.0	28	4.0	1	*	6	3.3
Suicide	72	10.0	70	10.1	-	-	4	*
Atherosclerosis	90	12.5	89	12.8	1	*	-	-
AIDS	27	3.8	27	3.9	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Manistee County

POPULATION	
As of April 1, 1990:	21,265
Rank Among Counties:	58
Per Square Mile:	39.2

NATALITY	
Total Live Births:	230
Teenage Mothers:	33
Low Weight Births:	14
First Births:	104

MORTALITY	
Total Deaths:	269
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	1
Fetal Deaths:	1

MARRIAGE	
Marriages:	147
Marriage Rate:	13.8

DIVORCE	
Divorces:	86
Divorce Rate:	8.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	230	10.8	219	10.4	3	*	8	32.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	33	143.5	31	141.6	1	*	1	*
Low Weight	14	60.9	12	54.8	1	*	1	*
Under 1,500 Grams	1	*	-	-	1	*	-	-
< 38 Weeks Gestation	37	160.9	36	164.4	1	*	-	-
Prenatal Care Began in 1st Trimester	174	756.5	166	758.0	1	*	7	875.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	269	148	121	267	146	121	1	1	-	1	1	-
Mortality Rate	12.6	14.4	11.0	12.7	14.4	11.2	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	1	-	1	2	-	2	7	6	19	39	192	-
White Male	-	-	-	1	2	-	1	4	4	9	24	101	-
White Female	-	1	-	-	-	-	1	3	2	10	14	90	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	269	1,265.0	267	1,273.6	1	*	4	*
Diseases of the Heart	94	442.0	94	448.4	-	-	-	-
Malignant Neoplasms	64	301.0	62	295.7	1	*	-	-
Cerebrovascular Diseases	26	122.3	26	124.0	-	-	-	-
Accidents and Adverse Effects	9	42.3	9	42.9	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	42.3	9	42.9	-	-	1	*
Pneumonia and Influenza	6	28.2	6	28.6	-	-	-	-
Diabetes Mellitus	8	37.6	8	38.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	17	79.9	17	81.1	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Marquette County

POPULATION

As of April 1, 1990:	70,887
Rank Among Counties:	24
Per Square Mile:	38.9

NATALITY

Total Live Births:	955
Teenage Mothers:	83
Low Weight Births:	51
First Births:	392

MORTALITY

Total Deaths:	546
Infant Deaths:	6
Neonatal Deaths:	5
Postneonatal Deaths:	1
Perinatal Deaths:	8
Fetal Deaths:	5

MARRIAGE

Marriages:	571
Marriage Rate:	16.1

DIVORCE

Divorces:	333
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	955	13.5	892	13.1	14	11.9	49	32.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	83	86.9	70	78.5	1	*	12	244.9
Low Weight	51	53.4	47	52.7	1	*	3	*
Under 1,500 Grams	6	6.3	5	*	1	*	-	-
< 38 Weeks Gestation	150	157.1	138	154.7	3	*	9	183.7
Prenatal Care Began in 1st Trimester	818	856.5	766	858.7	12	857.1	40	816.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	6.3	5	*	1	*	-	-
Neonatal Deaths	5	*	4	*	1	*	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	8	8.3	8	8.9	-	-	-	-
Fetal Deaths	5	*	5	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	546	293	253	537	284	253	3	3	-	5	5	-
Mortality Rate	7.7	8.1	7.3	7.9	8.3	7.5	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	2	-	2	3	5	2	8	20	34	93	371	-
White Male	-	2	-	1	3	3	1	5	14	20	62	173	-
White Female	5	-	-	1	-	1	-	3	5	14	29	195	-
Black Male	1	-	-	-	-	-	-	-	-	-	1	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	1	-	1	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	546	770.2	537	787.2	3	*	7	34.1
Diseases of the Heart	197	277.9	195	285.9	1	*	-	-
Malignant Neoplasms	117	165.1	115	168.6	1	*	1	*
Cerebrovascular Diseases	53	74.8	53	77.7	-	-	-	-
Accidents and Adverse Effects	21	29.6	20	29.3	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	24.0	17	24.9	-	-	-	-
Pneumonia and Influenza	28	39.5	28	41.0	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	9.9	7	10.3	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	10	14.1	9	13.2	-	-	-	-
Atherosclerosis	10	14.1	10	14.7	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Mason County

POPULATION	
As of April 1, 1990:	25,537
Rank Among Counties:	50
Per Square Mile:	51.6

NATALITY	
Total Live Births:	355
Teenage Mothers:	54
Low Weight Births:	26
First Births:	146

MORTALITY	
Total Deaths:	289
Infant Deaths:	1
Neonatal Deaths:	-
Postneonatal Deaths:	1
Perinatal Deaths:	1
Fetal Deaths:	1

MARRIAGE	
Marriages:	243
Marriage Rate:	19.0

DIVORCE	
Divorces:	162
Divorce Rate:	12.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	355	13.9	332	13.2	1	*	22	79.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	54	152.1	46	138.6	1	*	7	318.2
Low Weight	26	73.2	24	72.3	-	-	2	*
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	47	132.4	44	132.5	-	-	3	*
Prenatal Care Began in 1st Trimester	255	718.3	240	722.9	1	*	14	636.4

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	289	150	139	288	149	139	-	-	-	1	1	-
Mortality Rate	11.3	12.1	10.6	11.5	12.2	10.8	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	-	-	-	1	4	10	13	42	217	-
White Male	1	-	-	-	-	-	1	4	8	8	29	98	-
White Female	-	-	1	-	-	-	-	-	2	5	13	118	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	289	1,131.7	288	1,147.2	-	-	1	*
Diseases of the Heart	105	411.2	104	414.3	-	-	-	-
Malignant Neoplasms	67	262.4	67	266.9	-	-	-	-
Cerebrovascular Diseases	20	78.3	20	79.7	-	-	-	-
Accidents and Adverse Effects	7	27.4	7	27.9	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	43.1	11	43.8	-	-	-	-
Pneumonia and Influenza	8	31.3	8	31.9	-	-	-	-
Diabetes Mellitus	6	23.5	6	23.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	6	23.5	6	23.9	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Mecosta County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	37,308	Total Live Births:	455	Total Deaths:	337
Rank Among Counties:	42	Teenage Mothers:	65	Infant Deaths:	10
Per Square Mile:	66.6	Low Weight Births:	23	Neonatal Deaths:	3
		First Births:	174	Postneonatal Deaths:	7
				Perinatal Deaths:	6
				Fetal Deaths:	3

MARRIAGE		DIVORCE	
Marriages:	262	Divorces:	131
Marriage Rate:	14.0	Divorce Rate:	7.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	455	12.2	435	12.1	15	15.2	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	65	142.9	64	147.1	1	*	-	-
Low Weight	23	50.5	20	46.0	3	*	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	55	120.9	52	119.5	3	*	-	-
Prenatal Care Began in 1st Trimester	306	672.5	299	687.4	6	400.0	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	22.0	9	20.7	1	*	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	7	15.4	6	13.8	1	*	-	-
Perinatal Deaths	6	13.1	5	*	1	*	-	-
Fetal Deaths	3	*	2	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	337	175	162	330	171	159	7	4	3	-	-	-
Mortality Rate	9.0	9.1	9.0	9.2	9.2	9.2	7.1	*	*	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	2	-	2	4	3	2	7	11	19	58	219	-
White Male	5	-	-	2	2	3	1	4	7	13	32	102	-
White Female	4	2	-	-	1	-	1	3	4	5	25	114	-
Black Male	1	-	-	-	1	-	-	-	-	-	1	1	-
Black Female	-	-	-	-	-	-	-	-	-	1	-	2	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	337	903.3	330	919.9	7	710.7	8	69.2
Diseases of the Heart	122	327.0	120	334.5	2	*	1	*
Malignant Neoplasms	71	190.3	71	197.9	-	-	-	-
Cerebrovascular Diseases	20	53.6	18	50.2	2	*	-	-
Accidents and Adverse Effects	21	56.3	21	58.5	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	50.9	18	50.2	1	*	-	-
Pneumonia and Influenza	18	48.2	18	50.2	-	-	-	-
Diabetes Mellitus	9	24.1	9	25.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	18.8	7	19.5	-	-	-	-
Atherosclerosis	2	*	1	*	1	*	-	-
AIDS	2	*	2	*	-	-	2	*

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Menominee County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	24,920	Total Live Births:	290	Total Deaths:	302
Rank Among Counties:	53	Teenage Mothers:	32	Infant Deaths:	4
Per Square Mile:	23.8	Low Weight Births:	18	Neonatal Deaths:	2
		First Births:	116	Postneonatal Deaths:	2
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		**DIVORCE**			
Marriages:	224	Divorces:	96		
Marriage Rate:	18.0	Divorce Rate:	7.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	290	11.6	274	11.2	1	*	15	33.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	32	110.3	29	105.8	-	-	3	*
Low Weight	18	62.1	16	58.4	-	-	2	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	47	162.1	41	149.6	-	-	6	400.0
Prenatal Care Began in 1st Trimester	223	769.0	214	781.0	-	-	9	600.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	302	162	140	300	160	140	1	1	-	1	1	-
Mortality Rate	12.1	13.2	11.1	12.3	13.3	11.3	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	-	1	1	2	1	4	11	16	40	221	-
White Male	3	-	-	1	1	2	-	2	6	10	28	107	-
White Female	1	1	-	-	-	-	1	2	4	6	12	113	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-10	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	302	1,211.9	300	1,225.9	1	*	3	*
Diseases of the Heart	103	413.3	102	416.8	1	*	-	-
Malignant Neoplasms	70	280.9	70	286.1	-	-	-	-
Cerebrovascular Diseases	19	76.2	19	77.6	-	-	-	-
Accidents and Adverse Effects	11	44.1	11	45.0	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	56.2	14	57.2	-	-	-	-
Pneumonia and Influenza	17	68.2	17	69.5	-	-	-	-
Diabetes Mellitus	12	48.2	11	45.0	-	-	1	*
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	14	56.2	14	57.2	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of tne State Registrar and Center for Health Statistics, MDPH

Profile of Midland County

POPULATION

As of April 1, 1990:	75,651
Rank Among Counties:	22
Per Square Mile:	144.1

NATALITY

Total Live Births:	1,180
Teenage Mothers:	104
Low Weight Births:	71
First Births:	481

MORTALITY

Total Deaths:	487
Infant Deaths:	6
Neonatal Deaths:	2
Postneonatal Deaths:	4
Perinatal Deaths:	10
Fetal Deaths:	9

MARRIAGE

Marriages:	673
Marriage Rate:	17.8

DIVORCE

Divorces:	363
Divorce Rate:	9.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,180	15.6	1,152	15.6	15	20.6	13	11.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	104	88.1	103	89.4	-	-	1	*
Low Weight	71	60.2	69	59.9	2	*	-	-
Under 1,500 Grams	11	9.3	9	7.8	2	*	-	-
< 38 Weeks Gestation	164	139.0	162	140.6	1	*	1	*
Prenatal Care Began in 1st Trimester	1,049	889.0	1,024	888.9	13	866.7	12	923.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	5.1	6	5.2	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	4	*	4	*	-	-	-	-
Perinatal Deaths	10	8.4	9	7.8	1	*	-	-
Fetal Deaths	9	7.6	8	6.9	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	487	237	250	484	235	249	1	1	-	1	1	-
Mortality Rate	6.4	6.3	6.5	6.6	6.5	6.7	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	5	-	2	4	6	-	13	21	32	88	310	-
White Male	4	2	-	1	2	4	-	9	16	24	51	122	-
White Female	2	3	-	1	2	2	-	4	5	7	37	186	-
Black Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	487	643.7	484	656.1	1	*	11	50.1
Diseases of the Heart	164	216.8	162	219.6	1	*	-	-
Malignant Neoplasms	119	157.3	119	161.3	-	-	2	*
Cerebrovascular Diseases	38	50.2	38	51.5	-	-	-	-
Accidents and Adverse Effects	22	29.1	22	29.8	-	-	6	27.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	26.4	19	25.8	-	-	-	-
Pneumonia and Influenza	12	15.9	12	16.3	-	-	-	-
Diabetes Mellitus	14	18.5	14	19.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	15	19.8	15	20.3	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Missaukee County

POPULATION

As of April 1, 1990:	12,147
Rank Among Counties:	72
Per Square Mile:	21.5

NATALITY

Total Live Births:	158
Teenage Mothers:	21
Low Weight Births:	13
First Births:	56

MORTALITY

Total Deaths:	109
Infant Deaths:	4
Neonatal Deaths:	1
Postneonatal Deaths:	3
Perinatal Deaths:	2
Fetal Deaths:	2

MARRIAGE

Marriages:	101
Marriage Rate:	16.6

DIVORCE

Divorces:	30
Divorce Rate:	4.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	158	13.0	154	12.8	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	21	132.9	21	136.4	-	-	-	-
Low Weight	13	82.3	12	77.9	-	-	1	*
Under 1,500 Grams	2	*	1	*	-	-	1	*
< 38 Weeks Gestation	24	151.9	24	155.8	-	-	-	-
Prenatal Care Began in 1st Trimester	120	759.5	118	766.2	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	109	50	59	109	50	59	-	-	-	-	-	-
Mortality Rate	9.0	8.3	9.6	9.1	8.4	9.7	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	1	-	1	1	1	7	4	10	12	68	-
White Male	2	-	1	-	-	-	-	3	3	5	6	30	-
White Female	2	-	-	-	1	1	1	4	1	5	6	38	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	109	897.3	109	905.4	-	-	2	*
Diseases of the Heart	36	296.4	36	299.0	-	-	-	-
Malignant Neoplasms	22	181.1	22	182.7	-	-	-	-
Cerebrovascular Diseases	8	65.9	8	66.5	-	-	-	-
Accidents and Adverse Effects	5	*	5	*	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Monroe County

POPULATION	
As of April 1, 1990:	133,600
Rank Among Counties:	16
Per Square Mile:	240.0

NATALITY	
Total Live Births:	1,880
Teenage Mothers:	268
Low Weight Births:	128
First Births:	763

MORTALITY	
Total Deaths:	1,000
Infant Deaths:	9
Neonatal Deaths:	6
Postneonatal Deaths:	3
Perinatal Deaths:	9
Fetal Deaths:	3

MARRIAGE	
Marriages:	934
Marriage Rate:	14.0

DIVORCE	
Divorces:	598
Divorce Rate:	9.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,880	14.1	1,820	14.0	43	18.2	16	15.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	268	142.6	244	134.1	20	465.1	4	*
Low Weight	128	68.1	121	66.5	5	*	2	*
Under 1,500 Grams	16	8.5	15	8.2	1	*	-	-
< 38 Weeks Gestation	302	160.6	288	158.2	10	232.6	4	*
Prenatal Care Began in 1st Trimester	1,504	800.0	1,466	805.5	25	581.4	12	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	4.8	9	4.9	-	-	-	-
Neonatal Deaths	6	3.2	6	3.3	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	9	4.8	9	4.9	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,000	524	476	971	508	463	23	13	10	4	2	2
Mortality Rate	7.5	8.0	7.0	7.5	7.9	7.0	9.8	10.5	8.9	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	9	2	-	1	16	11	9	36	42	82	200	592	-
White Male	5	1	-	1	8	10	6	22	28	48	117	264	-
White Female	4	-	-	-	7	1	3	11	13	30	77	317	-
Black Male	-	1	-	-	-	-	-	2	-	3	4	3	-
Black Female	-	-	-	-	1	-	-	-	1	1	1	6	-
Other Male	-	-	-	-	-	-	-	1	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,000	748.5	971	745.9	23	975.8	19	47.0
Diseases of the Heart	351	262.7	345	265.0	4	*	2	*
Malignant Neoplasms	245	183.4	239	183.6	5	*	-	-
Cerebrovascular Diseases	61	45.7	57	43.8	3	*	-	-
Accidents and Adverse Effects	61	45.7	59	45.3	1	*	15	37.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	48	35.9	46	35.3	1	*	-	-
Pneumonia and Influenza	22	16.5	21	16.1	1	*	-	-
Diabetes Mellitus	32	24.0	30	23.0	2	*	-	-
Chronic Liver Disease and Cirrhosis	12	9.0	12	9.2	-	-	-	-
Homicide	6	4.5	5	*	1	*	1	*
Suicide	26	19.5	26	20.0	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Montcalm County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	53,059	Total Live Births:	842	Total Deaths:	483
Rank Among Counties:	33	Teenage Mothers:	136	Infant Deaths:	5
Per Square Mile:	74.5	Low Weight Births:	53	Neonatal Deaths:	2
		First Births:	284	Postneonatal Deaths:	3
				Perinatal Deaths:	3
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	498	Divorces:	271		
Marriage Rate:	18.8	Divorce Rate:	10.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	842	15.9	836	16.2	4	*	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	136	161.5	134	160.3	2	*	-	-
Low Weight	53	62.9	53	63.4	-	-	-	-
Under 1,500 Grams	6	7.1	6	7.2	-	-	-	-
< 38 Weeks Gestation	114	135.4	114	136.4	-	-	-	-
Prenatal Care Began in 1st Trimester	605	718.5	602	720.1	3	*	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	483	268	215	477	265	212	2	2	-	3	1	2
Mortality Rate	9.1	9.9	8.3	9.3	10.3	8.3	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	2	4	1	3	5	12	19	43	79	306	1
White Male	2	2	1	3	1	2	4	8	13	30	50	148	1
White Female	3	1	1	1	-	1	1	4	6	13	28	153	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	483	910.3	477	925.6	2	*	10	63.0
Diseases of the Heart	159	299.7	158	306.6	-	-	1	*
Malignant Neoplasms	124	233.7	123	238.7	1	*	2	*
Cerebrovascular Diseases	28	52.8	27	52.4	-	-	-	-
Accidents and Adverse Effects	18	33.9	18	34.9	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	22	41.5	22	42.7	-	-	1	*
Pneumonia and Influenza	23	43.3	22	42.7	-	-	-	-
Diabetes Mellitus	9	17.0	9	17.5	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	5	*	5	*	-	-	-	-
Suicide	5	*	5	*	-	-	1	*
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Montmorency County

POPULATION

As of April 1, 1990:	8,936
Rank Among Counties:	76
Per Square Mile:	16.2

NATALITY

Total Live Births:	86
Teenage Mothers:	10
Low Weight Births:	3
First Births:	32

MORTALITY

Total Deaths:	131
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE

Marriages:	57
Marriage Rate:	12.8

DIVORCE

Divorces:	30
Divorce Rate:	6.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	86	9.6	85	9.6	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	10	116.3	9	105.9	-	-	1	*
Low Weight	3	*	3	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	10	116.3	10	117.6	-	-	-	-
Prenatal Care Began in 1st Trimester	74	860.5	74	870.6	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	131	73	58	131	73	58	-	-	-	-	-	-
Mortality Rate	14.7	16.7	12.7	14.8	16.8	12.8	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	1	-	-	-	-	1	2	5	5	31	85	-
White Male	1	-	-	-	-	-	1	1	4	3	20	43	-
White Female	-	1	-	-	-	-	-	1	1	2	11	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	131	1,466.0	131	1,475.7	-	-	1	*
Diseases of the Heart	50	559.5	50	563.3	-	-	-	-
Malignant Neoplasms	32	358.1	32	360.5	-	-	-	-
Cerebrovascular Diseases	5	*	5	*	-	-	-	-
Accidents and Adverse Effects	10	111.9	10	112.7	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	*	3	*	-	-	-	-
Pneumonia and Influenza	9	100.7	9	101.4	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Muskegon County

POPULATION

As of April 1, 1990:	158,983
Rank Among Counties:	12
Per Square Mile:	313.6

NATALITY

Total Live Births:	2,644
Teenage Mothers:	462
Low Weight Births:	210
First Births:	963

MORTALITY

Total Deaths:	1,373
Infant Deaths:	38
Neonatal Deaths:	21
Postneonatal Deaths:	17
Perinatal Deaths:	33
Fetal Deaths:	15

MARRIAGE

Marriages:	1,399
Marriage Rate:	17.6

DIVORCE

Divorces:	843
Divorce Rate:	10.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,644	16.6	2,002	14.8	609	28.0	32	16.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	462	174.7	257	128.4	197	323.5	8	250.0
Low Weight	210	79.4	122	60.9	84	137.9	4	*
Under 1,500 Grams	42	15.9	25	12.5	17	27.9	-	-
< 38 Weeks Gestation	489	184.9	304	151.8	177	290.6	8	250.0
Prenatal Care Began in 1st Trimester	1,806	683.1	1,518	758.2	270	443.3	18	562.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	38	14.4	17	8.5	20	32.8	1	*
Neonatal Deaths	21	7.9	11	5.5	10	16.4	-	-
Postneonatal Deaths	17	6.4	6	3.0	10	16.4	1	*
Perinatal Deaths	33	12.4	16	8.0	16	26.0	1	*
Fetal Deaths	15	5.6	7	3.5	7	11.4	1	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,373	701	672	1,202	605	597	162	91	71	9	5	4
Mortality Rate	8.6	9.0	8.3	8.9	9.1	8.6	7.5	8.6	6.4	4.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	38	10	3	3	9	10	15	29	65	89	249	853	-
White Male	10	5	1	2	4	6	9	17	27	42	141	341	-
White Female	7	4	2	1	2	2	4	8	22	32	73	440	-
Black Male	7	1	-	-	2	2	1	3	10	7	21	37	-
Black Female	13	-	-	-	1	-	1	1	5	7	12	31	-
Other Male	1	-	-	-	-	-	-	-	1	-	1	2	-
Other Female	-	-	-	-	-	-	-	-	-	1	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,373	863.6	1,202	866.5	162	745.2	25	53.6
Diseases of the Heart	442	278.0	390	288.3	47	216.2	-	-
Malignant Neoplasms	316	198.8	284	209.9	32	147.2	3	*
Cerebrovascular Diseases	111	69.8	102	75.4	9	41.4	-	-
Accidents and Adverse Effects	69	43.4	59	43.6	10	46.0	15	32.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	62	39.0	58	42.9	4	*	-	-
Pneumonia and Influenza	42	26.4	37	27.3	4	*	-	-
Diabetes Mellitus	42	26.4	38	28.1	4	*	-	-
Chronic Liver Disease and Cirrhosis	14	8.8	11	8.1	3	*	-	-
Homicide	6	3.8	2	*	4	*	1	*
Suicide	16	10.1	16	11.8	-	-	1	*
Atherosclerosis	28	17.6	27	20.0	1	*	-	-
AIDS	4	*	2	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Newaygo County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	38,202	Total Live Births:	682	Total Deaths:	358
Rank Among Counties:	40	Teenage Mothers:	91	Infant Deaths:	4
Per Square Mile:	45.1	Low Weight Births:	50	Neonatal Deaths:	3
		First Births:	232	Postneonatal Deaths:	1
				Perinatal Deaths:	7
				Fetal Deaths:	6

MARRIAGE		DIVORCE	
Marriages:	361	Divorces:	221
Marriage Rate:	18.9	Divorce Rate:	11.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	682	17.9	672	18.0	5	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	91	133.4	90	133.9	-	-	1	*
Low Weight	50	73.3	49	72.9	1	*	-	-
Under 1,500 Grams	7	10.3	7	10.4	-	-	-	-
< 38 Weeks Gestation	91	133.4	91	135.4	-	-	-	-
Prenatal Care Began in 1st Trimester	457	670.1	451	671.1	2	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	3	*	-	-	1	*
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	1	*	-	-	-	-	1	*
Perinatal Deaths	7	10.2	7	10.3	-	-	-	-
Fetal Deaths	6	8.7	6	8.8	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	358	199	159	344	188	156	12	9	3	2	2	-
Mortality Rate	9.4	10.6	8.2	9.2	10.2	8.2	25.5	37.7	*	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	-	-	2	2	4	8	11	24	59	243	-
White Male	1	-	-	-	2	1	3	4	10	14	34	119	-
White Female	2	-	-	-	-	1	-	4	1	9	23	116	-
Black Male	-	1	-	-	-	-	1	-	-	1	2	4	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	3	-
Other Male	1	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	358	937.1	344	920.9	12	2,547.8	3	*
Diseases of the Heart	126	329.8	124	331.9	1	*	-	-
Malignant Neoplasms	95	248.7	90	240.9	5	*	-	-
Cerebrovascular Diseases	25	65.4	24	64.2	1	*	-	-
Accidents and Adverse Effects	17	44.5	15	40.2	2	*	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	34.0	13	34.8	-	-	-	-
Pneumonia and Influenza	20	52.4	20	53.5	-	-	-	-
Diabetes Mellitus	5	*	4	*	1	*	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	5	*	5	*	-	-	1	*
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Oakland County

POPULATION	
As of April 1, 1990:	1,083,592
Rank Among Counties:	2
Per Square Mile:	1,238.6

NATALITY	
Total Live Births:	16,555
Teenage Mothers:	1,151
Low Weight Births:	1,020
First Births:	7,130

MORTALITY	
Total Deaths:	7,932
Infant Deaths:	128
Neonatal Deaths:	97
Postneonatal Deaths:	31
Perinatal Deaths:	165
Fetal Deaths:	86

MARRIAGE	
Marriages:	9,298
Marriage Rate:	17.2

DIVORCE	
Divorces:	5,120
Divorce Rate:	9.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	16,555	15.3	14,529	14.9	1,568	20.1	298	10.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,151	69.5	806	55.5	328	209.2	14	47.0
Low Weight	1,020	61.6	773	53.2	218	139.0	17	57.0
Under 1,500 Grams	226	13.7	154	10.6	68	43.4	2	*
< 38 Weeks Gestation	2,727	164.7	2,225	153.1	423	269.8	47	157.7
Prenatal Care Began in 1st Trimester	14,401	869.9	12,903	888.1	1,113	709.8	249	835.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	128	7.7	85	5.9	40	25.5	3	*
Neonatal Deaths	97	5.9	68	4.7	28	17.9	1	*
Postneonatal Deaths	31	1.9	17	1.2	12	7.7	2	*
Perinatal Deaths	165	9.9	119	8.2	36	22.8	5	*
Fetal Deaths	86	5.2	64	4.4	13	8.2	4	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	7,932	3,845	4,087	7,341	3,529	3,812	516	277	239	69	36	33
Mortality Rate	7.3	7.3	7.3	7.5	7.4	7.6	6.6	7.7	5.7	2.4	2.5	2.2

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	128	27	15	12	43	62	78	200	387	630	1,368	4,982	-
White Male	49	12	6	4	25	40	49	108	192	295	722	2,027	-
White Female	36	11	7	7	11	10	19	48	130	265	546	2,722	-
Black Male	28	3	1	1	5	6	7	24	38	30	53	81	-
Black Female	12	1	1	-	2	5	2	15	20	31	36	114	-
Other Male	2	-	-	-	-	1	1	2	2	5	6	17	-
Other Female	1	-	-	-	-	-	-	2	5	4	4	17	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	7,932	732.0	7,341	751.8	516	662.4	97	34.8
Diseases of the Heart	2,800	258.4	2,650	271.4	126	161.8	4	*
Malignant Neoplasms	2,039	188.2	1,904	195.0	114	146.3	16	5.7
Cerebrovascular Diseases	568	52.4	521	53.4	39	50.1	1	*
Accidents and Adverse Effects	273	25.2	246	25.2	20	25.7	35	12.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	312	28.8	304	31.1	7	9.0	-	-
Pneumonia and Influenza	194	17.9	185	18.9	9	11.6	1	*
Diabetes Mellitus	193	17.8	170	17.4	23	[illegible]	-	-
Chronic Liver Disease and Cirrhosis	105	9.7	99	10.1	5	*	-	-
Homicide	67	6.2	40	4.1	26	33.4	14	5.0
Suicide	128	11.8	116	11.9	11	14.1	9	3.2
Atherosclerosis	45	4.2	44	4.5	1	*	-	-
AIDS	35	3.2	26	2.7	9	11.6	1	*

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Oceana County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	22,454	Total Live Births:	332	Total Deaths:	215
Rank Among Counties:	54	Teenage Mothers:	36	Infant Deaths:	4
Per Square Mile:	41.5	Low Weight Births:	22	Neonatal Deaths:	2
		First Births:	99	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	220	Divorces:	112		
Marriage Rate:	19.6	Divorce Rate:	10.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	332	14.8	316	14.3	-	-	16	48.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	108.4	33	104.4	-	-	3	*
Low Weight	22	66.3	21	66.5	-	-	1	*
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	49	147.6	48	151.9	-	-	1	*
Prenatal Care Began in 1st Trimester	219	659.6	210	664.6	-	-	9	562.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	215	117	98	213	117	96	-	-	-	2	-	2
Mortality Rate	9.6	10.6	8.6	9.7	10.8	8.6	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	1	1	4	3	1	3	6	16	40	136	-
White Male	3	-	1	-	4	3	-	1	4	10	26	65	-
White Female	1	-	-	1	-	-	1	2	2	6	13	70	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	215	957.5	213	965.7	-	-	6	87.3
Diseases of the Heart	80	356.3	78	353.6	-	-	-	-
Malignant Neoplasms	46	204.9	46	208.6	-	-	-	-
Cerebrovascular Diseases	11	49.0	11	49.9	-	-	-	-
Accidents and Adverse Effects	15	66.8	15	68.0	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	35.6	8	36.3	-	-	-	-
Pneumonia and Influenza	20	89.1	20	90.7	-	-	1	*
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Ogemaw County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	18,681	Total Live Births:	280	Total Deaths:	269
Rank Among Counties:	61	Teenage Mothers:	42	Infant Deaths:	-
Per Square Mile:	32.8	Low Weight Births:	14	Neonatal Deaths:	-
		First Births:	119	Postneonatal Deaths:	-
				Perinatal Deaths:	4
				Fetal Deaths:	4
MARRIAGE		**DIVORCE**			
Marriages:	154	Divorces:	78		
Marriage Rate:	16.5	Divorce Rate:	8.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	280	15.0	276	14.9	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	[illegible]50.0	42	152.2	-	-	-	-
Low Weight	14	50.0	14	50.7	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	39	139.3	39	141.3	-	-	-	-
Prenatal Care Began in 1st Trimester	232	828.6	229	829.7	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	269	144	125	266	141	125	1	1	-	2	2	-
Mortality Rate	14.4	15.7	13.2	14.4	15.5	13.3	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	1	1	-	4	-	1	6	5	15	66	170	-
White Male	-	-	1	-	-	-	1	3	4	8	37	87	-
White Female	-	1	-	-	3	-	-	3	1	7	27	83	-
Black Male	-	-	-	-	1	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	269	1,440.0	266	1,437.5	1	*	6	117.3
Diseases of the Heart	108	578.1	106	572.8	-	-	-	-
Malignant Neoplasms	57	305.1	57	308.0	-	-	-	-
Cerebrovascular Diseases	24	128.5	24	129.7	-	-	-	-
Accidents and Adverse Effects	10	53.5	10	54.0	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	53.5	10	54.0	-	-	-	-
Pneumonia and Influenza	11	58.9	11	59.4	-	-	-	-
Diabetes Mellitus	8	42.8	8	43.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	13	69.6	13	70.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Ontonagon County

POPULATION

As of April 1, 1990:	8,854
Rank Among Counties:	77
Per Square Mile:	6.8

NATALITY

Total Live Births:	88
Teenage Mothers:	12
Low Weight Births:	5
First Births:	27

MORTALITY

Total Deaths:	123
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	59
Marriage Rate:	13.3

DIVORCE

Divorces:	27
Divorce Rate:	6.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	88	9.9	86	9.9	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	12	136.4	11	127.9	-	-	1	*
Low Weight	5	*	5	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	15	170.5	15	174.4	-	-	-	-
Prenatal Care Began in 1st Trimester	66	750.0	64	744.2	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	123	68	55	123	68	55	-	-	-	-	-	-
Mortality Rate	13.9	15.1	12.6	14.1	15.4	12.8	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	-	1	-	-	-	4	7	14	94	-
White Male	2	1	-	-	1	-	-	-	4	4	9	47	-
White Female	-	-	-	-	-	-	-	-	-	3	5	47	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,389.2	123	1,409.6	-	-	2	*
Diseases of the Heart	40	451.8	40	458.4	-	-	-	-
Malignant Neoplasms	21	237.2	21	240.7	-	-	-	-
Cerebrovascular Diseases	12	135.5	12	137.5	-	-	-	-
Accidents and Adverse Effects	6	67.8	6	68.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	*	2	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	9	101.6	9	103.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	1	*
Atherosclerosis	6	67.8	6	68.8	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Osceola County

POPULATION
As of April 1, 1990: 20,146
Rank Among Counties: 59
Per Square Mile: 35.4

NATALITY
Total Live Births: 314
Teenage Mothers: 48
Low Weight Births: 16
First Births: 104

MORTALITY
Total Deaths: 215
Infant Deaths: 1
Neonatal Deaths: 1–
Postneonatal Deaths: -
Perinatal Deaths: 2
Fetal Deaths: 1

MARRIAGE
Marriages: 183
Marriage Rate: 18.2

DIVORCE
Divorces: 93
Divorce Rate: 9.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	314	15.6	312	15.7	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	152.9	46	147.4	-	-	2	*
Low Weight	16	51.0	15	48.1	-	-	1	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	39	124.2	39	125.0	-	-	-	-
Prenatal Care Began in 1st Trimester	204	649.7	203	650.6	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	215	120	95	211	118	93	1	-	1	3	2	1
Mortality Rate	10.7	12.0	9.4	10.6	12.0	9.3	*	-	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	1	2	2	-	8	9	16	27	148	-
White Male	-	-	1	1	2	2	-	6	7	11	18	70	-
White Female	1	-	-	-	-	-	-	1	2	5	8	76	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	215	1,067.2	211	1,058.8	1	*	4	*
Diseases of the Heart	80	397.1	78	391.4	1	*	-	-
Malignant Neoplasms	56	278.0	54	271.0	-	-	-	-
Cerebrovascular Diseases	7	34.7	7	35.1	-	-	-	-
Accidents and Adverse Effects	12	59.6	12	60.2	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	39.7	8	40.1	-	-	-	-
Pneumonia and Influenza	11	54.6	11	55.2	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	1	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Oscoda County

POPULATION

As of April 1, 1990:	7,842
Rank Among Counties:	81
Per Square Mile:	13.8

NATALITY

Total Live Births:	90
Teenage Mothers:	10
Low Weight Births:	7
First Births:	41

MORTALITY

Total Deaths:	106
Infant Deaths:	2
Neonatal Deaths:	-
Postneonatal Deaths:	2
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	68
Marriage Rate:	17.3

DIVORCE

Divorces:	32
Divorce Rate:	8.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	90	11.5	89	11.4	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	10	111.1	9	101.1	-	-	1	*
Low Weight	7	77.8	7	78.7	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	16	177.8	16	179.8	-	-	-	-
Prenatal Care Began in 1st Trimester	70	777.8	69	775.3	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	106	56	50	106	56	50	-	-	-	-	-	-
Mortality Rate	13.5	14.5	12.6	13.6	14.6	12.6	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	1	2	-	3	3	8	20	65	-
White Male	1	1	-	-	1	2	-	3	2	3	14	29	-
White Female	1	1	-	-	-	-	-	-	1	5	6	36	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	106	1,351.7	106	1,360.0	-	-	3	*
Diseases of the Heart	36	459.1	36	461.9	-	-	-	-
Malignant Neoplasms	28	357.1	28	359.3	-	-	-	-
Cerebrovascular Diseases	5	*	5	*	-	-	-	-
Accidents and Adv[illegible]ects	9	114.8	9	115.5	-	-	3	*
Chronic Obstruc[illegible]nary Diseases and Allied Cond[illegible]	4	*	4	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	1	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Otsego County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	17,957	Total Live Births:	280	Total Deaths:	177
Rank Among Counties:	64	Teenage Mothers:	34	Infant Deaths:	1
Per Square Mile:	34.8	Low Weight Births:	12	Neonatal Deaths:	-
		First Births:	97	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		DIVORCE	
Marriages:	160	Divorces:	85
Marriage Rate:	17.8	Divorce Rate:	9.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	280	15.6	273	15.4	-	-	7	37.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	34	121.4	32	117.2	-	-	2	*
Low Weight	12	42.9	12	44.0	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	33	117.9	32	117.2	-	-	1	*
Prenatal Care Began in 1st Trimester	240	857.1	236	864.5	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	177	101	76	176	101	75	-	-	-	1	-	1
Mortality Rate	9.9	11.5	8.3	9.9	11.6	8.3	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	1	2	1	1	5	13	9	34	110	-
White Male	1	-	-	1	1	1	1	1	9	7	25	54	-
White Female	-	-	-	-	1	-	-	4	3	2	9	56	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	177	985.7	176	991.4	-	-	3	*
Diseases of the Heart	59	328.6	59	332.4	-	-	-	-
Malignant Neoplasms	39	217.2	38	214.1	-	-	-	-
Cerebrovascular Diseases	19	105.8	19	107.0	-	-	-	-
Accidents and Adverse Effects	10	55.7	10	56.3	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	33.4	6	33.8	-	-	-	-
Pneumonia and Influenza	7	39.0	7	39.4	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Ottawa County

POPULATION
As of April 1, 1990: 187,768
Rank Among Counties: 10
Per Square Mile: 331.1

NATALITY
Total Live Births: 3,306
Teenage Mothers: 269
Low Weight Births: 134
First Births: 1,219

MORTALITY
Total Deaths: 1,172
Infant Deaths: 21
Neonatal Deaths: 14
Postneonatal Deaths: 7
Perinatal Deaths: 25
Fetal Deaths: 15

MARRIAGE
Marriages: 1,546
Marriage Rate: 16.5

DIVORCE
Divorces: 475
Divorce Rate: 5.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,306	17.6	3,215	17.5	18	17.2	72	22.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	269	81.4	257	79.9	5	*	7	97.2
Low Weight	134	40.5	124	38.6	4	*	6	83.3
Under 1,500 Grams	25	7.6	22	6.8	2	*	1	*
< 38 Weeks Gestation	420	127.0	399	124.1	4	*	17	236.1
Prenatal Care Began in 1st Trimester	2,815	851.5	2,749	855.1	8	444.4	57	791.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	21	6.4	20	6.2	1	*	-	-
Neonatal Deaths	14	4.2	13	4.0	1	*	-	-
Postneonatal Deaths	7	2.1	7	2.2	-	-	-	-
Perinatal Deaths	25	7.5	19	5.9	2	*	-	-
Fetal Deaths	15	4.5	10	3.1	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,172	556	616	1,153	549	604	8	3	5	8	3	5
Mortality Rate	6.2	6.0	6.5	6.3	6.1	6.5	7.6	*	*	2.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	21	6	3	2	8	12	6	24	49	74	147	820	-
White Male	11	2	2	1	3	7	6	12	24	35	86	360	-
White Female	9	3	1	1	4	5	-	12	23	39	57	450	-
Black Male	-	-	-	-	1	-	-	-	-	-	1	1	-
Black Female	1	-	-	-	-	-	-	-	-	-	1	3	-
Other Male	-	-	-	-	-	-	-	-	-	-	2	1	-
Other Female	-	1	-	-	-	-	-	-	-	-	-	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,172	624.2	1,153	628.2	8	763.4	19	32.1
Diseases of the Heart	369	196.5	365	198.9	2	*	-	-
Malignant Neoplasms	280	149.1	273	148.7	3	*	2	*
Cerebrovascular Diseases	72	38.3	72	39.2	-	-	-	-
Accidents and Adverse Effects	54	28.8	52	28.3	1	*	11	18.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	49	26.1	49	26.7	-	-	-	-
Pneumonia and Influenza	81	43.1	80	43.6	-	-	-	-
Diabetes Mellitus	24	12.8	24	13.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	9	4.8	9	4.9	-	-	-	-
Homicide	5	*	5	*	-	-	-	-
Suicide	21	11.2	21	11.4	-	-	2	*
Atherosclerosis	18	9.6	18	9.8	-	-	-	-
AIDS	5	*	5	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Presque Isle County

POPULATION
As of April 1, 1990: 13,743
Rank Among Counties: 67
Per Square Mile: 21.0

MARRIAGE
Marriages: 86
Marriage Rate: 12.5

NATALITY
Total Live Births: 129
Teenage Mothers: 9
Low Weight Births: 4
First Births: 44

DIVORCE
Divorces: 37
Divorce Rate: 5.4

MORTALITY
Total Deaths: 133
Infant Deaths: -
Neonatal Deaths: -
Postneonatal Deaths: -
Perinatal Deaths: 1
Fetal Deaths: 1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	129	9.4	128	9.4	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	69.8	9	70.3	-	-	-	-
Low Weight	4	*	4	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	17	131.8	17	132.8	-	-	-	-
Prenatal Care Began in 1st Trimester	108	837.2	107	835.9	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	133	75	58	132	75	57	-	-	-	1	-	1
Mortality Rate	9.7	11.1	8.3	9.7	11.1	8.2	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	1	3	1	1	3	10	23	90	-
White Male	-	-	-	1	1	2	1	1	2	7	18	42	-
White Female	-	-	-	-	-	1	-	-	1	3	5	47	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	133	967.8	132	966.4	-	-	2	*
Diseases of the Heart	50	363.8	50	366.1	-	-	-	-
Malignant Neoplasms	33	240.1	33	241.6	-	-	-	-
Cerebrovascular Diseases	7	50.9	7	51.2	-	-	-	-
Accidents and Adverse Effects	4	*	4	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	7	50.9	6	43.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	1	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Roscommon County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	19,776	Total Live Births:	239	Total Deaths:	290
Rank Among Counties:	60	Teenage Mothers:	48	Infant Deaths:	4
Per Square Mile:	37.4	Low Weight Births:	17	Neonatal Deaths:	1
		First Births:	81	Postneonatal Deaths:	3
				Perinatal Deaths:	3
				Fetal Deaths:	2

MARRIAGE		DIVORCE	
Marriages:	144	Divorces:	90
Marriage Rate:	14.6	Divorce Rate:	9.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	239	12.1	236	12.0	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	200.8	46	194.9	-	-	2	*
Low Weight	17	71.1	17	72.0	-	-	-	-
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	33	138.1	33	139.8	-	-	-	-
Prenatal Care Began in 1st Trimester	180	753.1	179	758.5	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	290	171	119	285	169	116	-	-	-	5	2	3
Mortality Rate	14.7	17.7	11.8	14.5	17.7	11.5	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	-	-	1	2	-	7	5	18	64	189	-
White Male	3	-	-	-	1	2	-	5	2	9	35	112	-
White Female	1	-	-	-	-	-	-	2	2	9	28	74	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	290	1,466.4	285	1,453.0	-	-	1	*
Diseases of the Heart	102	515.8	100	509.8	-	-	-	-
Malignant Neoplasms	71	359.0	70	356.9	-	-	-	-
Cerebrovascular Diseases	18	91.0	18	91.8	-	-	-	-
Accidents and Adverse Effects	14	70.8	14	71.4	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	65.7	12	61.2	-	-	-	-
Pneumonia and Influenza	17	86.0	17	86.7	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	30.3	6	30.6	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	3	*	-	-	1	*
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Saginaw County

POPULATION	
As of April 1, 1990:	211,946
Rank Among Counties:	9
Per Square Mile:	260.0

NATALITY	
Total Live Births:	3,664
Teenage Mothers:	645
Low Weight Births:	340
First Births:	1,355

MORTALITY	
Total Deaths:	1,882
Infant Deaths:	42
Neonatal Deaths:	33
Postneonatal Deaths:	9
Perinatal Deaths:	53
Fetal Deaths:	23

MARRIAGE	
Marriages:	871
Marriage Rate:	8.2

DIVORCE	
Divorces:	635
Divorce Rate:	6.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,664	17.3	2,510	14.6	1,111	29.7	40	16.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	645	176.0	295	117.5	343	308.7	7	175.0
Low Weight	340	92.8	149	59.4	191	171.9	-	-
Under 1,500 Grams	70	19.1	26	10.4	44	39.6	-	-
< 38 Weeks Gestation	757	206.6	401	159.8	350	315.0	5	*
Prenatal Care Began in 1st Trimester	2,857	779.7	2,102	837.5	722	649.9	32	800.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	42	11.5	17	6.8	25	22.5	-	-
Neonatal Deaths	33	9.0	12	4.8	21	18.9	-	-
Postneonatal Deaths	9	2.5	5	*	4	*	-	-
Perinatal Deaths	53	14.4	23	9.1	30	26.8	-	-
Fetal Deaths	23	6.2	13	5.2	10	8.9	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,882	964	918	1,544	762	782	329	199	130	9	3	6
Mortality Rate	8.9	9.5	8.3	9.0	9.2	8.8	8.8	11.6	6.4	3.7	*	4.7

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	42	7	3	5	21	12	22	54	85	139	343	1,149	-
White Male	6	1	2	2	9	3	11	25	39	66	144	452	-
White Female	9	-	-	-	3	-	3	9	16	39	130	573	-
Black Male	17	2	1	3	7	6	5	14	24	21	45	54	-
Black Female	8	3	-	-	1	2	3	6	6	11	21	69	-
Other Male	-	-	-	-	1	-	-	-	-	1	1	-	-
Other Female	-	1	-	-	-	1	-	-	-	1	2	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,882	888.0	1,544	897.3	329	879.4	36	57.1
Diseases of the Heart	655	309.0	566	328.9	87	232.6	1	*
Malignant Neoplasms	429	202.4	353	205.1	74	197.8	2	*
Cerebrovascular Diseases	151	71.2	131	76.1	20	53.5	-	-
Accidents and Adverse Effects	71	33.5	49	28.5	20	53.5	12	19.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	66	31.1	57	33.1	9	24.1	2	*
Pneumonia and Influenza	49	23.1	40	23.2	9	24.1	-	-
Diabetes Mellitus	61	28.8	51	29.6	9	24.1	-	-
Chronic Liver Disease and Cirrhosis	20	9.4	12	7.0	8	21.4	1	*
Homicide	32	15.1	5	*	27	72.2	7	11.1
Suicide	22	10.4	17	9.9	4	*	5	*
Atherosclerosis	31	14.6	29	16.9	2	*	-	-
AIDS	4	*	4	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of St. Clair County

POPULATION	
As of April 1, 1990:	145,607
Rank Among Counties:	14
Per Square Mile:	198.3

NATALITY	
Total Live Births:	2,077
Teenage Mothers:	247
Low Weight Births:	120
First Births:	838

MORTALITY	
Total Deaths:	1,246
Infant Deaths:	17
Neonatal Deaths:	5
Postneonatal Deaths:	12
Perinatal Deaths:	6
Fetal Deaths:	2

MARRIAGE	
Marriages:	1,262
Marriage Rate:	17.3

DIVORCE	
Divorces:	731
Divorce Rate:	10.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,077	14.3	1,989	14.1	65	21.6	21	16.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	247	118.9	231	116.1	13	200.0	2	*
Low Weight	120	57.8	106	53.3	11	169.2	2	*
Under 1,500 Grams	25	12.0	21	10.6	4	*	-	-
< 38 Weeks Gestation	341	164.2	316	158.9	20	307.7	5	*
Prenatal Care Began in 1st Trimester	1,673	805.5	1,623	816.0	35	538.5	14	666.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	17	8.2	15	7.5	2	*	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	12	5.8	10	5.0	2	*	-	-
Perinatal Deaths	6	2.9	6	3.0	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,246	634	612	1,211	612	599	28	17	11	7	5	2
Mortality Rate	8.6	9.0	8.2	8.6	8.9	8.3	9.3	11.6	7.1	5.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	17	7	4	2	6	10	7	23	42	87	234	807	-
White Male	8	3	2	1	4	5	4	15	24	54	125	367	-
White Female	7	3	2	1	2	2	3	6	17	27	103	426	-
Black Male	2	1	-	-	-	2	-	2	-	3	2	5	-
Black Female	-	-	-	-	-	-	-	-	-	1	3	7	-
Other Male	-	-	-	-	-	1	-	-	1	2	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,246	855.7	1,211	856.9	28	928.4	19	44.6
Diseases of the Heart	454	311.8	442	312.8	12	397.9	2	*
Malignant Neoplasms	313	215.0	307	217.2	4	*	2	*
Cerebrovascular Diseases	91	62.5	88	62.3	2	*	-	-
Accidents and Adverse Effects	46	31.6	45	31.8	1	*	9	21.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	55	37.8	53	37.5	1	*	-	-
Pneumonia and Influenza	20	13.7	20	14.2	-	-	-	-
Diabetes Mellitus	25	17.2	24	17.0	1	*	-	-
Chronic Liver Disease and Cirrhosis	17	11.7	15	10.6	2	*	-	-
Homicide	3	*	-	-	2	*	-	-
Suicide	21	14.4	21	14.9	-	-	1	*
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of St. Joseph County

POPULATION	
As of April 1, 1990:	58,913
Rank Among Counties:	28
Per Square Mile:	117.2

NATALITY	
Total Live Births:	868
Teenage Mothers:	149
Low Weight Births:	60
First Births:	334

MORTALITY	
Total Deaths:	559
Infant Deaths:	8
Neonatal Deaths:	5
Postneonatal Deaths:	3
Perinatal Deaths:	7
Fetal Deaths:	5

MARRIAGE	
Marriages:	494
Marriage Rate:	16.8

DIVORCE	
Divorces:	356
Divorce Rate:	12.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	868	14.7	831	14.6	32	19.9	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	149	171.7	137	164.9	11	343.8	1	*
Low Weight	60	69.1	51	61.4	8	250.0	1	*
Under 1,500 Grams	6	6.9	6	7.2	-	-	-	-
< 38 Weeks Gestation	133	153.2	118	142.0	12	375.0	3	*
Prenatal Care Began in 1st Trimester	641	738.5	613	737.7	24	750.0	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	9.2	7	8.4	1	*	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	3	*	2	*	1	*	-	-
Perinatal Deaths	7	8.0	7	8.4	-	-	-	-
Fetal Deaths	5	*	5	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	559	274	285	536	263	273	18	10	8	5	1	4
Mortality Rate	9.5	9.5	9.5	9.4	9.5	9.4	11.2	12.8	9.7	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	3	-	-	5	9	4	13	22	42	113	340	-
White Male	3	2	-	-	2	5	1	8	16	26	60	140	-
White Female	4	-	-	-	2	4	3	5	4	16	47	188	-
Black Male	-	1	-	-	1	-	-	-	-	-	3	5	-
Black Female	1	-	-	-	-	-	-	-	-	-	3	4	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	559	948.9	536	943.4	18	1,119.4	8	45.2
Diseases of the Heart	188	319.1	182	320.3	6	373.1	-	-
Malignant Neoplasms	124	210.5	119	209.5	3	*	-	-
Cerebrovascular Diseases	29	49.2	28	49.3	1	*	-	-
Accidents and Adverse Effects	30	50.9	28	49.3	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	32.3	19	33.4	-	-	-	-
Pneumonia and Influenza	19	32.3	18	31.7	1	*	1	*
Diabetes Mellitus	30	50.9	29	51.0	1	*	-	-
Chronic Liver Disease and Cirrhosis	11	18.7	11	19.4	-	-	-	-
Homicide	3	*	2	*	1	*	1	*
Suicide	13	22.1	13	22.9	-	-	1	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Sanilac County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	39,928	Total Live Births:	557	Total Deaths:	383
Rank Among Counties:	38	Teenage Mothers:	59	Infant Deaths:	4
Per Square Mile:	41.4	Low Weight Births:	28	Neonatal Deaths:	2
		First Births:	191	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		**DIVORCE**			
Marriages:	306	Divorces:	201		
Marriage Rate:	15.3	Divorce Rate:	10.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	557	14.0	554	14.0	1	*	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	59	105.9	59	106.5	-	-	-	-
Low Weight	28	50.3	28	50.5	-	-	-	-
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	96	172.4	96	173.3	-	-	-	-
Prenatal Care Began in 1st Trimester	407	730.7	405	731.0	1	*	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	6	10.7	6	10.8	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	383	200	183	380	198	182	-	-	-	2		1
Mortality Rate	9.6	10.2	9.0	9.6	10.2	9.0	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	1	1	7	2	2	6	8	27	66	258	-
White Male	4	-	1	1	5	1	2	2	7	13	37	125	-
White Female	-	1	-	-	2	1	-	4	1	14	27	132	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	383	959.2	380	959.3	-	-	10	85.2
Diseases of the Heart	130	325.6	127	320.6	-	-	-	-
Malignant Neoplasms	96	240.4	96	242.4	-	-	-	-
Cerebrovascular Diseases	31	77.6	31	78.3	-	-	-	-
Accidents and Adverse Effects	18	45.1	18	45.4	-	-	7	59.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	32.6	13	32.8	-	-	-	-
Pneumonia and Influenza	13	32.6	13	32.8	-	-	-	-
Diabetes Mellitus	16	40.1	16	40.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	6	15.0	6	15.1	-	-	1	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Schoolcraft County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,302	Total Live Births:	107	Total Deaths:	103
Rank Among Counties:	79	Teenage Mothers:	19	Infant Deaths:	2
Per Square Mile:	7.1	Low Weight Births:	2	Neonatal Deaths:	1
		First Births:	43	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		DIVORCE	
Marriages:	52	Divorces:	19
Marriage Rate:	12.5	Divorce Rate:	4.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	107	12.9	104	13.4	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	19	177.6	18	173.1	-	-	1	*
Low Weight	2	*	2	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	12	112.1	12	115.4	-	-	-	-
Prenatal Care Began in 1st Trimester	87	813.1	86	826.9	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	1	*	-	-	1	*
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	-	-	-	-	1	*
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	103	62	41	99	58	41	-	-	-	3	3	-
Mortality Rate	12.4	15.5	9.5	12.8	15.6	10.1	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	1	-	1	1	6	5	14	73	-
White Male	1	-	-	-	1	-	1	-	5	3	11	36	-
White Female	-	-	-	-	-	-	-	-	1	2	3	35	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	1	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	103	1,240.7	99	1,275.6	-	-	1	*
Diseases of the Heart	31	373.4	30	386.5	-	-	-	-
Malignant Neoplasms	24	289.1	24	309.2	-	-	-	-
Cerebrovascular Diseases	9	108.4	9	116.0	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*	4	*	-	-	-	-
Pneumonia and Influenza	4	*	4	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Shiawassee County

POPULATION	
As of April 1, 1990:	69,770
Rank Among Counties:	26
Per Square Mile:	129.1

NATALITY	
Total Live Births:	1,009
Teenage Mothers:	131
Low Weight Births:	58
First Births:	416

MORTALITY	
Total Deaths:	558
Infant Deaths:	9
Neonatal Deaths:	3
Postneonatal Deaths:	6
Perinatal Deaths:	8
Fetal Deaths:	6

MARRIAGE	
Marriages:	630
Marriage Rate:	18.1

DIVORCE	
Divorces:	262
Divorce Rate:	7.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,009	14.5	1,001	14.5	2	*	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	131	129.8	129	128.9	1	*	-	-
Low Weight	58	57.5	58	57.9	-	-	-	-
Under 1,500 Grams	13	12.9	13	13.0	-	-	-	-
< 38 Weeks Gestation	171	169.5	170	169.8	-	-	1	*
Prenatal Care Began in 1st Trimester	836	828.5	830	829.2	2	*	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	8.9	9	9.0	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	6	5.9	6	6.0	-	-	-	-
Perinatal Deaths	8	7.9	6	6.0	-	-	-	-
Fetal Deaths	6	5.9	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	558	278	280	556	277	279	-	-	-	2	1	1
Mortality Rate	8.0	8.2	7.8	8.1	8.2	7.9	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	9	3	1	1	8	5	7	13	27	42	95	347	-
White Male	6	1	-	1	7	4	2	10	18	25	60	143	-
White Female	3	2	1	-	1	1	5	2	9	17	35	203	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	558	799.8	556	805.4	-	-	13	61.2
Diseases of the Heart	172	246.5	171	247.7	-	-	-	-
Malignant Neoplasms	136	194.9	135	195.6	-	-	2	*
Cerebrovascular Diseases	49	70.2	49	71.0	-	-	-	-
Accidents and Adverse Effects	31	44.4	31	44.9	-	-	8	37.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	31	44.4	31	44.9	-	-	1	*
Pneumonia and Influenza	15	21.5	15	21.7	-	-	-	-
Diabetes Mellitus	21	30.1	21	30.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	8	11.5	8	11.6	-	-	-	-
Atherosclerosis	20	28.7	20	29.0	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Tuscola County

POPULATION
As of April 1, 1990: 55,498
Rank Among Counties: 31
Per Square Mile: 68.3

NATALITY
Total Live Births: 791
Teenage Mothers: 107
Low Weight Births: 50
First Births: 311

MORTALITY
Total Deaths: 501
Infant Deaths: 8
Neonatal Deaths: 5
Postneonatal Deaths: 3
Perinatal Deaths: 6
Fetal Deaths: 1

MARRIAGE
Marriages: 444
Marriage Rate: 16.0

DIVORCE
Divorces: 212
Divorce Rate: 7.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	791	14.3	784	14.4	3	*	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	107	135.3	105	133.9	1	*	1	*
Low Weight	50	63.2	50	63.8	-	-	-	-
Under 1,500 Grams	10	12.6	10	12.8	-	-	-	-
< 38 Weeks Gestation	122	154.2	120	153.1	1	*	1	*
Prenatal Care Began in 1st Trimester	636	804.0	634	808.7	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	10.1	8	10.2	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	6	7.6	6	7.6	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	501	286	215	496	284	212	2	1	1	3	1	2
Mortality Rate	9.0	10.4	7.7	9.1	10.6	7.7	*	*	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	1	1	4	3	4	6	19	27	47	68	313	-
White Male	8	-	-	4	1	3	6	11	18	34	38	161	-
White Female	-	1	1	-	2	1	-	5	9	13	30	150	-
Black Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	2	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	501	902.7	496	910.9	2	*	9	53.6
Diseases of the Heart	186	335.1	185	339.7	1	*	-	-
Malignant Neoplasms	116	209.0	116	213.0	-	-	1	*
Cerebrovascular Diseases	30	54.1	29	53.3	-	-	-	-
Accidents and Adverse Effects	33	59.5	32	58.8	-	-	6	35.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	28.8	16	29.4	-	-	-	-
Pneumonia and Influenza	12	21.6	12	22.0	-	-	-	-
Diabetes Mellitus	13	23.4	13	23.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	8	14.4	8	14.7	-	-	-	-
Atherosclerosis	7	12.6	7	12.9	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Van Buren County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	70,060	Total Live Births:	1,156	Total Deaths:	655
Rank Among Counties:	25	Teenage Mothers:	202	Infant Deaths:	11
Per Square Mile:	114.6	Low Weight Births:	62	Neonatal Deaths:	6
		First Births:	457	Postneonatal Deaths:	5
				Perinatal Deaths:	12
				Fetal Deaths:	8
MARRIAGE		**DIVORCE**			
Marriages:	580	Divorces:	347		
Marriage Rate:	16.6	Divorce Rate:	9.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,156	16.5	1,048	16.3	95	20.1	12	13.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	202	174.7	163	155.5	37	389.5	2	*
Low Weight	62	53.6	56	53.4	6	63.2	-	-
Under 1,500 Grams	9	7.8	7	6.7	2	*	-	-
< 38 Weeks Gestation	187	161.8	164	156.5	23	242.1	-	-
Prenatal Care Began in 1st Trimester	790	683.4	738	704.2	43	452.6	9	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	11	9.5	9	8.6	2	*	-	-
Neonatal Deaths	6	5.2	5	*	1	*	-	-
Postneonatal Deaths	5	*	4	*	1	*	-	-
Perinatal Deaths	12	10.3	8	7.6	3	*	-	-
Fetal Deaths	8	6.9	5	*	2	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	655	347	308	579	303	276	67	38	29	9	6	3
Mortality Rate	9.3	10.1	8.6	9.0	9.6	8.4	14.2	16.9	11.7	9.8	13.6	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	11	3	4	4	6	2	9	17	34	69	112	384	-
White Male	6	1	1	1	5	-	5	8	14	45	68	149	-
White Female	3	2	3	2	-	1	2	5	13	18	31	196	-
Black Male	2	-	-	1	-	-	2	3	5	3	5	17	-
Black Female	-	-	-	-	1	1	-	1	2	2	5	17	-
Other Male	-	-	-	-	-	-	-	-	-	1	3	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	655	934.9	579	898.9	67	1,418.0	17	79.9
Diseases of the Heart	204	291.2	180	279.4	22	465.6	1	*
Malignant Neoplasms	177	252.6	159	246.8	15	317.5	2	*
Cerebrovascular Diseases	45	64.2	43	66.8	2	*	-	-
Accidents and Adverse Effects	37	52.8	34	52.8	3	*	13	61.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	30	42.8	28	43.5	2	*	-	-
Pneumonia and Influenza	8	11.4	7	10.9	-	-	-	-
Diabetes Mellitus	23	32.8	17	26.4	5	*	-	-
Chronic Liver Disease and Cirrhosis	7	10.0	7	10.9	-	-	-	-
Homicide	4	*	4	*	-	-	-	-
Suicide	9	12.8	8	12.4	1	*	1	*
Atherosclerosis	16	22.8	15	23.3	1	*	-	-
AIDS	3	*	1	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Washtenaw County

POPULATION

As of April 1, 1990:	282,937
Rank Among Counties:	6
Per Square Mile:	398.4

NATALITY

Total Live Births:	4,221
Teenage Mothers:	343
Low Weight Births:	276
First Births:	1,854

MORTALITY

Total Deaths:	1,485
Infant Deaths:	36
Neonatal Deaths:	24
Postneonatal Deaths:	12
Perinatal Deaths:	44
Fetal Deaths:	23

MARRIAGE

Marriages:	2,244
Marriage Rate:	15.9

DIVORCE

Divorces:	1,294
Divorce Rate:	9.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,221	14.9	3,289	13.8	654	20.5	245	19.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	343	81.3	195	59.3	144	220.2	4	*
Low Weight	276	65.4	167	50.8	92	140.7	16	65.3
Under 1,500 Grams	58	13.7	34	10.3	23	35.2	1	*
< 38 Weeks Gestation	680	161.1	496	150.8	143	218.7	39	159.2
Prenatal Care Began in 1st Trimester	3,467	821.4	2,842	864.1	411	628.4	200	816.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	36	8.5	25	7.6	11	16.8	-	-
Neonatal Deaths	24	5.7	15	4.6	9	13.8	-	-
Postneonatal Deaths	12	2.8	10	3.0	2	*	-	-
Perinatal Deaths	44	10.4	30	9.1	13	19.7	-	-
Fetal Deaths	23	5.4	17	5.1	5	*	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,485	717	767	1,278	609	669	192	102	89	13	6	7
Mortality Rate	5.2	5.1	5.4	5.4	5.2	5.6	6.0	6.6	5.4	1.0	0.9	1.1

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	36	6	5	2	9	12	18	52	81	130	223	911	-
White Male	13	-	1	2	3	7	10	26	42	65	116	324	-
White Female	12	2	1	-	3	2	3	15	21	46	74	490	-
Black Male	7	3	2	-	1	1	3	5	13	8	14	45	-
Black Female	3	1	1	-	1	-	2	6	5	7	15	48	-
Other Male	-	-	-	-	1	1	-	-	-	1	2	1	-
Other Female	-	-	-	-	-	1	-	-	-	3	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,485	524.9	1,278	536.8	192	601.4	22	30.0
Diseases of the Heart	473	167.2	413	173.5	57	178.5	1	*
Malignant Neoplasms	357	126.2	311	130.6	40	125.3	1	*
Cerebrovascular Diseases	111	39.2	99	41.6	12	37.6	-	-
Accidents and Adverse Effects	62	21.9	51	21.4	9	28.2	10	13.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	58	20.5	52	21.8	6	18.8	-	-
Pneumonia and Influenza	46	16.3	36	15.1	10	31.3	1	*
Diabetes Mellitus	41	14.5	34	14.3	7	21.9	-	-
Chronic Liver Disease and Cirrhosis	18	6.4	16	6.7	2	*	-	-
Homicide	5	*	3	*	2	*	1	*
Suicide	30	10.6	27	11.3	2	*	3	*
Atherosclerosis	16	5.7	16	6.7	-	-	-	-
AIDS	16	5.7	14	5.9	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Wayne County

POPULATION

As of April 1, 1990:	2,111,687
Rank Among Counties:	1
Per Square Mile:	3,433.1

MARRIAGE

Marriages:	11,814
Marriage Rate:	11.2

NATALITY

Total Live Births:	40,001
Teenage Mothers:	7,152
Low Weight Births:	4,567
First Births:	15,167

DIVORCE

Divorces:	7,790
Divorce Rate:	7.4

MORTALITY

Total Deaths:	21,186
Infant Deaths:	595
Neonatal Deaths:	395
Postneonatal Deaths:	200
Perinatal Deaths:	571
Fetal Deaths:	224

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	40,001	18.9	18,408	15.0	20,959	24.6	544	17.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	7,152	178.8	1,755	95.3	5,326	254.1	59	108.5
Low Weight	4,567	114.2	1,180	64.1	3,335	159.1	44	80.9
Under 1,500 Grams	990	24.7	206	11.2	775	37.0	5	*
< 38 Weeks Gestation	9,022	225.5	2,996	162.8	5,896	281.3	113	207.7
Prenatal Care Began in 1st Trimester	29,074	726.8	15,092	819.9	13,531	645.6	395	726.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	595	14.9	142	7.7	451	21.5	2	*
Neonatal Deaths	395	9.9	91	4.9	302	14.4	2	*
Postneonatal Deaths	200	5.0	51	2.8	149	7.1	-	-
Perinatal Deaths	571	14.2	165	8.9	395	18.7	6	10.9
Fetal Deaths	224	5.6	84	4.5	130	6.2	5	*

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	21,186	11,096	10,088	12,257	6,163	6,094	8,8114,856T3,953		107	68	39	
Mortality Rate	10.0	11.1	9.1	10.0	10.3	9.6	10.3	12.5	8.5	3.5	4.6	2.5

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	595	80	29	45	233	280	295	995	1,235	1,834	4,005	11,557	3
White Male	76	12	4	12	44	54	72	233	295	556	1,379	3,426	-
White Female	66	14	6	5	12	17	20	108	189	367	919	4,370	1
Black Male	251	29	12	22	151	176	153	431	481	535	930	1,684	1
Black Female	198	24	7	5	24	32	48	214	264	358	754	2,024	1
Other Male	1	1	-	1	1	1	2	8	3	13	11	26	-
Other Female	1	-	-	-	1	-	-	1	3	4	11	18	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	21,186	1,003.3	12,257	996.7	8,811	1,034.6	387	64.6
Diseases of the Heart	7,416	351.2	4,674	380.1	2,702	317.3	7	1.2
Malignant Neoplasms	4,870	230.6	3,027	246.2	1,815	213.1	28	4.7
Cerebrovascular Diseases	1,139	53.9	671	54.6	463	54.4	2	*
Accidents and Adverse Effects	606	28.7	323	26.3	277	32.5	100	16.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	679	32.2	492	40.0	184	21.6	2	*
Pneumonia and Influenza	675	32.0	425	34.6	245	28.8	5	*
Diabetes Mellitus	594	28.1	315	25.6	278	32.6	1	*
Chronic Liver Disease and Cirrhosis	392	18.6	211	17.2	177	20.8	-	-
Homicide	750	35.5	116	9.4	631	74.1	145	24.2
Suicide	251	11.9	161	13.1	86	10.1	21	3.5
Atherosclerosis	95	4.5	70	5.7	25	2.9	-	-
AIDS	234	11.1	62	5.0	171	20.1	4	*

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Profile of Wexford County

POPULATION	
As of April 1, 1990:	26,360
Rank Among Counties:	49
Per Square Mile:	46.6

NATALITY	
Total Live Births:	413
Teenage Mothers:	63
Low Weight Births:	18
First Births:	151

MORTALITY	
Total Deaths:	263
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE	
Marriages:	336
Marriage Rate:	25.5

DIVORCE	
Divorces:	164
Divorce Rate:	12.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	413	15.7	405	15.5	2	*	6	22.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	63	152.5	62	153.1	-	-	1	*
Low Weight	18	43.6	18	44.4	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	57	138.0	57	140.7	-	-	-	-
Prenatal Care Began in 1st Trimester	324	784.5	318	785.2	2	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1991 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1991 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	263	141	122	258	140	118	-	-	-	4	1	3
Mortality Rate	10.0	11.0	9.0	9.9	11.0	8.8	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	1	1	3	1	3	6	8	24	42	171	-
White Male	2	1	1	1	1	-	3	2	5	17	18	89	-
White Female	-	-	-	-	2	1	-	3	3	6	22	81	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	263	997.7	258	990.0	-	-	6	77.0
Diseases of the Heart	93	352.8	92	353.0	-	-	-	-
Malignant Neoplasms	67	254.2	64	245.6	-	-	-	-
Cerebrovascular Diseases	13	49.3	13	49.9	-	-	-	-
Accidents and Adverse Effects	13	49.3	13	49.9	-	-	6	77.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	53.1	14	53.7	-	-	-	-
Pneumonia and Influenza	12	45.5	11	42.2	-	-	-	-
Diabetes Mellitus	6	22.8	6	23.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

NATALITY

SECTION I

NATALITY

An Overview, 1991

Total Resident Births	150,253
Total Resident Live Births	149,478
Resident Live Births per Day	410
Total Resident Fetal Deaths	775
Resident Fetal Deaths per Day	2
Crude Birth Rate	16.1
Fertility Rate	67.5
Fetal Death Ratio	5.2
First Order Births (Percent of Total Live Births)	39.3
Median Birth Weight in Grams (Live Births)	3,374
Median Birth Weight in Grams (Fetal Deaths)	887
Low Weight Live Births	11,706
Low Weight Birth Ratio	78.3
Median Age of Mother (Live Births)	26
Median Age of Mother (Fetal Deaths)	26
Live Births with Congenital Anomalies	2,495
Congenital Anomalies per 10,000 Live Births	166.9
Live Births with No Prenatal Care	2,264
No Prenatal Care Ratio	15.1
Home Births	947
Live Born Sets of Twins	1,934
Live Born Sets of Triplets	38
Live Born Multiple Births of Four or More	1
Male Live Births per 100 Female Live Births	104.4

Between 1900 and 1991, the number of total births (live births and fetal deaths) has varied considerably. The general trend has been increasing numbers of total births from 1900 through 1957, declining numbers through 1976 and fairly stable numbers until 1989. During 1989 through 1991 there were more total births each year in Michigan than had been born to Michigan residents since 1971.

LIVE BIRTHS

The smallest number of live births officially recorded in this century was 43,221 in 1901. The actual number of live births was undoubtedly higher. Because of the method of recording, many live births were probably not recorded.

Live births generally increased from 43,699 in 1900 to 208,488 in the peak year of 1957 with major declines occurring during the first years of the Great Depression and the Second World War (Figure 1.1 and Table 1.1). Between 1957 and 1976, live births decreased by 37.0 percent to 131,378, the lowest total since 1945. The number of births increased to 145,162 live births in 1980, the highest annual total since 1972. Between 1980 and 1988 the number of live births declined to 133,026 in 1983 and increased to 139,635 in 1988. Be-

Table 1.1

Live Births and Crude Birth Rates
Michigan and United States Residents

Selected Years, 1900 - 1991

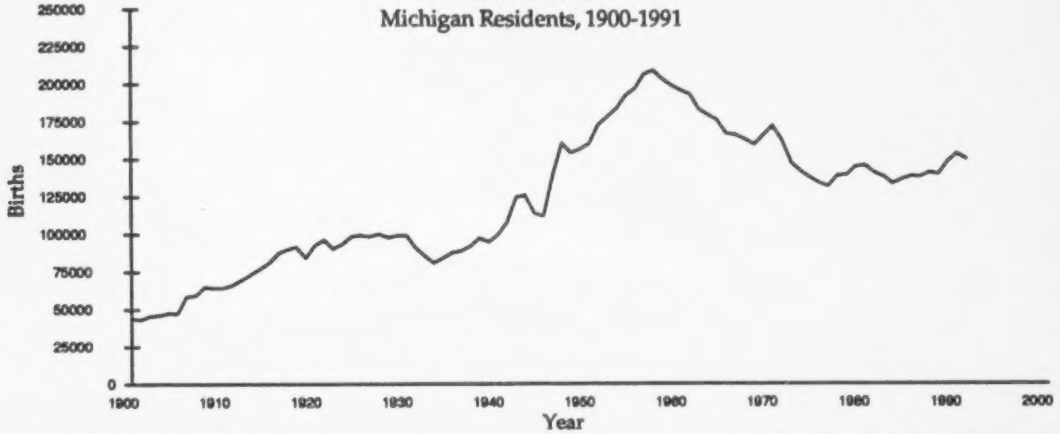
United States		Year	Michigan	
Number	Rate		Number	Rate
—	—	1900	43,699	18.1
2,618,000	21.3	1930	98,882	20.4
4,257,850	23.7	1960	195,056	24.9
3,731,386	18.4	1970	171,667	19.3
3,612,258	15.9	1980	145,162	15.7
3,629,238	15.8	1981	140,579	15.2
3,680,537	15.9	1982	137,950	15.0
3,638,933	15.5	1983	133,026	14.5
3,669,141	15.5	1984	135,782	15.0
3,760,561	15.8	1985	138,052	15.2
3,756,547	15.6	1986	137,626	15.1
3,809,394	15.7	1987	140,466	15.3
3,909,510	15.9	1988	139,635	15.2
4,040,958	16.3	1989	148,164	16.0
4,158,212	16.7	1990	153,080	16.5
4,111,000Pr.	16.2Pr.	1991	149,478	16.1

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 1.1

Live Births

Michigan Residents, 1900-1991



tween 1989 and 1991 the number has been higher than the number of live births in 1980. The number of infants born in 1991, 149,478, is 7.0 percent higher than the number in 1988.

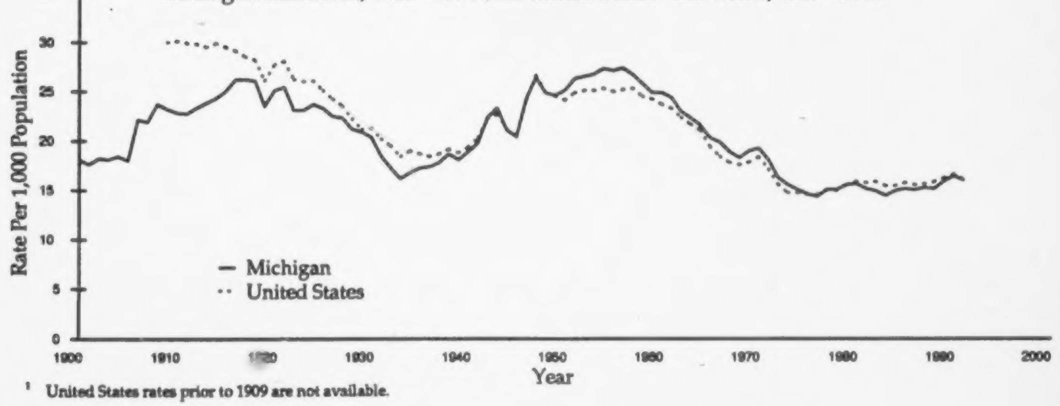
The national pattern was similar to that observed in Michigan. Live births increased from an estimated 2,718,000 in 1909 to an estimated 4,300,000 in 1957. Since 1957, there has been a general decline in live births. The low point occurred in 1973 when live births in the United States totaled 3,136,965. For 1991, the provisional figure was 4,111,000, an increase (5.2 percent) from the number born in 1988.

Another view of the historic pattern in live births may be obtained through examination of changes in the crude birth rate. In this century the crude birth rate in Michigan has ranged from a low of 14.4 per 1,000 residents in 1976 to a high of 27.4 in 1956 (Figure 1.2) The rate increased from 22.1 in 1906, the first year for filing individual birth certificates, to 26.2 in 1916. During the period 1917 to 1933 Michigan's rate declined steadily, reaching

Figure 1.2

Live Birth Rates

Michigan Residents, 1900 - 1991 and United States[1] Residents, 1909 - 1991[2]



[1] United States rates prior to 1909 are not available.

[2] United States rate for 1991 is provisional.

16.2. The rate rose over the next 23 years to a peak in 1956 (27.4). Between 1956 and 1976 Michigan's birth rate declined by 47.4 percent, falling to 14.4. Between 1976 and 1988, the rate fluctuated between the high of 15.7 in 1980 and a low of 14.5 in 1983. In 1990 the crude birth rate was 16.5, the highest rate since 1971. In 1991 the rate declined to 16.1.

National statistics since 1900 follow the same general pattern of rising and falling as observed in Michigan. Between 1980 and 1991, the rates for the nation were above those observed in Michigan. The 1991 provisional rate for the United States was 16.2 per 1,000 people.

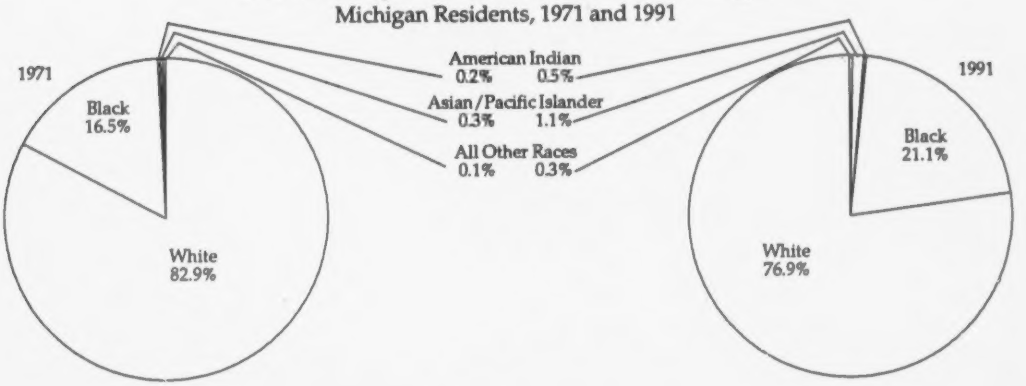
RACIAL COMPOSITION

As part of the changing demographics in Michigan, the racial composition of women having live births in Michigan changed over the period 1971 through 1991 (Figure 1.3). Live births to white women declined from 82.9 percent of all live births in 1971 to a low of 76.9 percent in 1991. Live births to black women increased from 16.5 percent of the total in 1971 to a high of 21.1 percent of all live births in 1991. Live births of all other races increased from 0.6 percent in 1971 to 1.9 percent in 1991. It should be noted that Indians from India were classified as white before 1978 and among Asian or Pacific Islanders since 1978. There has been a corresponding increase in the number of live births recorded to Asian or Pacific Islander mothers since 1978. Between 1971 and 1991 the percent of live births to women recorded as Asian or Pacific Islanders increased from 0.3 percent to 1.1 percent. In 1971 0.2 percent of the live births were born to American Indian women. This increased to 0.5 percent by 1991.

Figure 1.3

Live Births by Mother's Race or National Origin

Michigan Residents, 1971 and 1991



AGE, RACE AND ANCESTRY

In 1991, 39.7 percent of all live births were to women less than 25 years of age. Only 1.0 percent occurred to women 40 or more years of age. The median age of mothers was 26 years. Black mothers were younger (median 23 years) than white mothers (median 27 years). The median age for mothers of all other races was the same as the median age for white mothers.

Approximately 58.5 percent of the infants born to black women were to women aged 24 or less compared to 34.7 percent of infants born to white women and 33.9 percent of infants born to women of all other races. This differential was the result of the relatively large percentage of infants born to black women at ages below 20 (25.9 percent) (Table 1.2).

The median age for mothers reporting African or American Indian ancestry was 23 years, with mothers of Hispanic ancestry having a median age of 24 years (Table 1.3). Mothers of European and Arab ancestry had median ages of 28 years, with mothers of all other ancestry groups having a median age of 25 years.

Women under 25 years of age gave birth to 58.3 percent of the live births born to women of African ancestry. The corresponding figures for American Indian and Hispanic women under 25 years of age were 57.7 and 52.8 percent, respectively. For women of European or Arab ancestry that delivered live born infants, 28.7 or 30.1 percent, respectively, were under 25 years of age. Less than five percent (4.9) of all live births were to mothers of unknown ancestry. However, it appears that African ancestry may be considerably underreported on the live birth certificate. Of the 46,578 birth certificates where the mothers ancestry was listed as American, race of mothers was recorded as black on 13,104 (28.1 percent) of these certificates.

Table 1.2

Live Births and Percent Distribution by Age and Race of Mother

Michigan Residents, 1991

Age of Mother	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
< 15	414	0.3	125	0.1	283	0.9	6	0.2	-	-
15-19	19,325	12.9	11,131	9.7	7,884	25.0	277	11.0	33	7.7
20-24	39,546	26.5	28,611	24.9	10,288	32.6	571	22.6	76	17.7
25-29	45,995	30.8	38,129	33.2	6,950	22.0	792	31.4	124	28.8
30-34	32,025	21.4	27,036	23.5	4,255	13.5	590	23.4	144	33.5
35-39	10,627	7.1	8,758	7.6	1,589	5.0	237	9.4	43	10.0
40 +	1,500	1.0	1,161	1.0	282	0.9	47	1.9	10	2.3
Not Stated	46	0.0	32	0.0	12	0.0	2	0.1	-	-
Total	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0
Median Age at Last Birthday	26		27		23		27		29	

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 1.3
Live Births and Percent Distribution by Age and Ancestry of Mother
Michigan Residents, 1991

Age of Mother in Years	Total		African		American Indian		Arab		European		Hispanic		Other (Incl. American)		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Under 15	414	0.3	166	0.9	2	0.1	3	0.1	34	0.1	20	0.5	176	0.4	13	0.2
15 - 19	19,325	12.9	4,413	24.8	435	20.4	144	6.2	4,627	7.0	887	20.2	7,620	15.4	1,199	16.5
20 - 24	39,546	26.5	5,797	32.6	791	37.2	553	23.8	14,265	21.6	1,412	32.2	14,438	29.1	2,290	31.4
25 - 29	45,995	30.8	3,988	22.4	555	26.1	762	32.7	23,017	34.9	1,159	26.4	14,480	29.2	2,034	27.9
30 - 34	32,025	21.4	2,414	13.6	265	12.5	589	25.3	17,518	26.5	626	14.3	9,332	18.8	1,281	17.6
35 - 39	10,627	7.1	871	4.9	70	3.3	227	9.8	5,803	8.8	244	5.6	3,018	6.1	394	5.4
40 +	1,500	1.0	152	0.9	10	0.5	48	2.1	728	1.1	37	0.8	474	1.0	51	0.7
Not Stated	46	0.0	8	0.0	-	0.0	1	0.0	10	0.0	3	0.1	4	0.0	20	0.3
Total	149,478	100.0	17,809	100.0	2,128	100.0	2,327	100.0	66,002	100.0	4,388	100.0	49,542	100.0	7,282	100.0
Median Age at Last Birthday	26		23		23		28		28		24		25		25	

Source: Office of the State Registrar and Center for Health Statistics, MDPH

FERTILITY

The crude birth rates examined above are useful statistics for gauging overall trends in live births for specific geographic areas. Where attempts are made to interpret such trends, however, crude birth rates can be misleading. These rates do not specifically incorporate the size of the population capable of bearing children. This population subset, generally considered to be women between the ages of 15 through 44, does not always maintain a stable relationship with the total population. A more exact measure for analyzing changing birth patterns is the fertility rate. Since the fertility rate relates the number of live births to the female population of childbearing age, more valid comparisons for various periods of time and locations are possible. Similarly, age-specific rates which relate the number of live births to the females in a specific age group provide more detail on the fertility of women in the age group.

A comparison of fertility rates since 1900 for Michigan with those for the United States since 1930 is presented in Table 1.4. The crude birth rate changes discussed above understate the recent decline in fecundity for both regions. Since 1960 the crude birth rate in Michigan has dropped 35.3 percent, while the fertility rate in 1991 was 45.2 percent below the 1960 rate. For the United States over this same period, the crude birth rate declined 31.6 percent and the fertility rate fell by 41.0 percent. The difference in these two

Table 1.4
Fertility Rates
Michigan and United States Residents
Selected Years, 1900 - 1991

United States	Year	Michigan
—	1900	78.5
89.2	1930	87.6
118.0	1960	123.1
87.9	1970	91.7
68.4	1980	66.3
67.4	1981	63.2
67.3	1982	61.7
65.8	1983	59.3
65.4	1984	63.1
66.2	1985	63.8
65.4	1986	63.2
65.7	1987	64.3
67.2	1988	63.9
69.2	1989	67.9
70.9	1990	69.1
69.6Pr	1991	67.5

Source: Office of the State Registrar and Center forHealth Statistics, MDPH measures occurred because the proportion of the population in the childbearing ages has increased over this 30 year period. In Michigan, though the total population has increased 18.8 percent by 1990 the number of women 15 to 44 years of age has increased 39.8 percent. The proportion of women of childbearing age in Michigan increased from 20.3 percent in 1960 to 23.8 percent of the population in 1990.

Figure 1.4 displays the changes in the total fertility rate between 1920 and 1991 for Michigan and the United States. (See also Table 4.4) The total fertility rate is a hypothetical measure of the number of live births that would occur to each 1,000 women during their reproductive life, if these women experienced the age-specific birth rates observed in a given year.

Michigan's total fertility rate has generally paralleled that of the nation. The Michigan rate dropped from 3,195.5 in 1920 to 2,006.5 in 1933 and then increased between 1933 and 1957, reaching 4,100.0 in the latter year. Between 1957 and 1991 the total fertility rate in Michigan declined to a low of 1,632.5 in 1982 and increased to 1,985.5 in 1991. The rate was 2,081.0 in 1990 for the United States. The national rates have been higher than the Michigan rates since 1975.

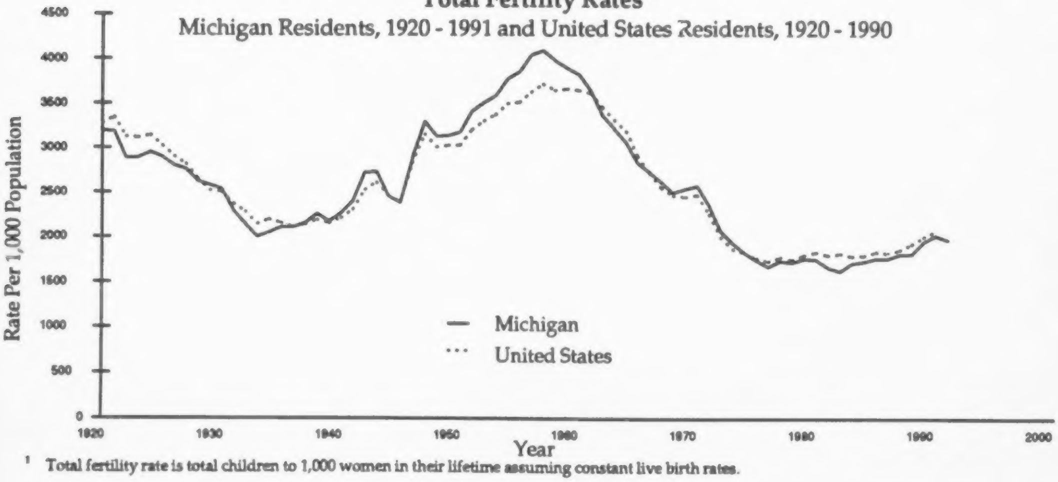
In 1990, for the first time since 1973, Michigan and national total fertility rates were above 2,000. In 1991 the Michigan total fertility rate was again below 2,000. A total fertility rate of over 2,000 is necessary for replacement of the parents, since not all women survive the reproductive years nor would all children survive to adulthood. If the total fertility rate falls below 2,000 for a long period, a natural decrease in population will eventually occur. It should be noted that although the total fertility rate has been below 2,000 since 1973, the rate of natural increase for Michigan remains positive. Over the period 1973 through 1991, there were 1,202,686 persons added to the population of Michigan through the excess of live births over deaths.

Table 1.5 provides a comparison between crude birth rates and fertility rates for white and black persons in Michigan for the period since 1970. In 1970 the crude birth rate for black persons was 51.6 percent above that for white persons. By 1982 this percentage had

Figure 1.4

Total Fertility Rates[1]

Michigan Residents, 1920 - 1991 and United States Residents, 1920 - 1990



[1] Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

Table 1.5

Crude Live Birth Rates and Fertility Rates by Race of Mother

Michigan Residents, Selected Years, 1970 - 1991

Crude Birth Rate		Year	Fertility Rate	
White	Black		White	Black
18.4	27.9	1970	87.9	123.5
13.9	21.1	1975	62.6	89.5
15.0	19.5	1980	64.2	78.3
14.7	17.9	1985	62.8	69.6
15.2	24.7	1990	65.3	93.5
14.7	24.3	1991	62.9	92.3
-20.1	-12.9	Percent Change 1970-1991	-28.4	-25.3

Source: Office of the State Registrar and Center for Health Statistics, MDPH

fallen to 20.0 percent. By 1991 the crude birth rate for black persons was 65.3 percent higher than the rate for white persons. This increase occurred because the crude birth rate for white persons remained stable while the rate increased substantially for black persons between 1985 and 1991.

Paralleling the trends in numbers of live births, the crude birth rates for both groups declined between 1970 and 1991. The crude birth rate for white persons in 1991 was 20.1 percent below that observed in 1970 while the rate for the black group was 12.9 percent below the rate for 1970.

By comparing live births to the respective numbers of women aged 15-44 for these two groups, the relative differences in rates for 1991 decrease. The fertility rate for black persons was 40.5 percent above the rate for white persons in 1970, fell sharply to 10.8 percent higher in 1985 and increased to 46.7 percent higher in 1991. Since 1970 the fertility rate for black persons has declined 25.3 percent compared with a 28.4 percent drop for white persons.

AGE-SPECIFIC LIVE BIRTH RATES

Figure 1.5 displays age-specific live birth rates for the period 1970-1991. Live birth rates in all age groups dropped between 1970 and 1976. For women under 20 years the rate continued to decline throughout the years 1976-1983 reaching a low of 38.6 in 1983. The rate increased after 1983 to 57.3 in 1991.

After declining between 1970 and 1976, live birth rates for women between 20 and 29 years of age remained stable until 1980. Rates for women in the age groups 20-24 decreased through 1983, then increased in 1984. After a decline to a low of 99.2 live births per 1,000 women in 1988, the rate increased 12.0 percent to 111.1 in 1991.

Rates for women 25-29 declined between 1970 and 1976 then generally increased through 1980, decreased between 1980 and 1983, and then generally increased since 1983.

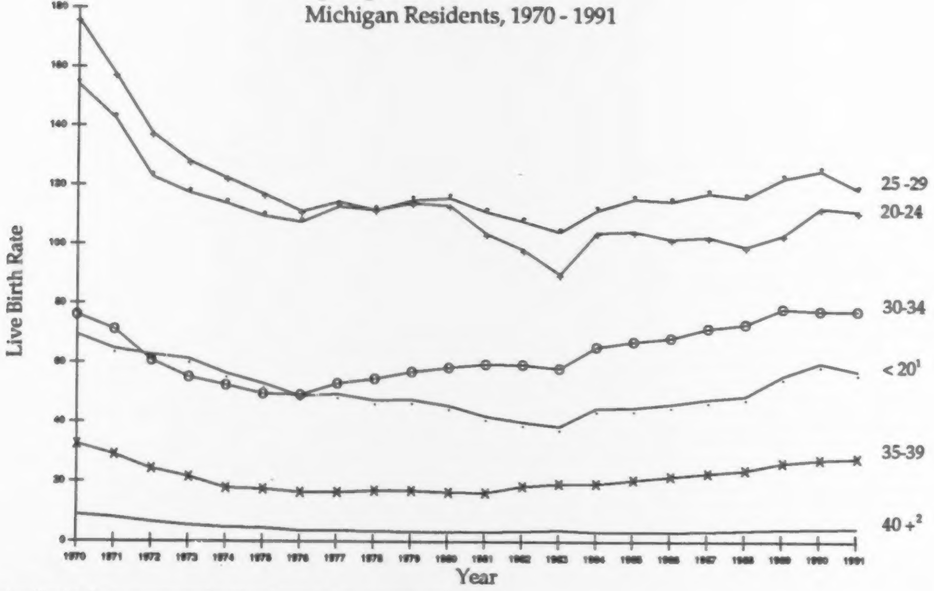
For women in the age groups 30-34 and 35-39 live birth rates decreased between 1970 and 1976, then increased by 57.6 and 71.8 percent, respectively, by 1991.

In 1970, women aged 20-24 had the highest live birth rate of any age group, 14.3 percent higher than that of women aged 25-29. From 1978 through 1991 the live birth rate of women in the 25-29 year age group was above that of women aged 20-24 (Table 4.4). In 1991, the rate of 118.7 for women 25-29 was 6.8 percent higher than the rate for women 20-24 years of age.

Figures 1.6 and 1.7 present the trends in age-specific rates for black and white women respectively for the period 1980-1991. Rates for black women under age 25 and over age 34 were above those for white women during these years. The live birth rate for white women between 25 and 34 years of age was usually higher than the rates for their black counterparts.

Between 1980 and 1991 the rates for white and black females increased for all age groups, except for white females ages 20 to 29. For teenagers, birth rates increased 9.0 percent for white mothers and 38.1 percent for black mothers. For ages 20 to 24 years, the rates increased 37.7 percent for black females but decreased 11.0 percent for white females. The rates increased less for black females over 29 years of age than for their white counterparts.

Figure 1.5
Age-Specific Live Birth Rates
Michigan Residents, 1970 - 1991



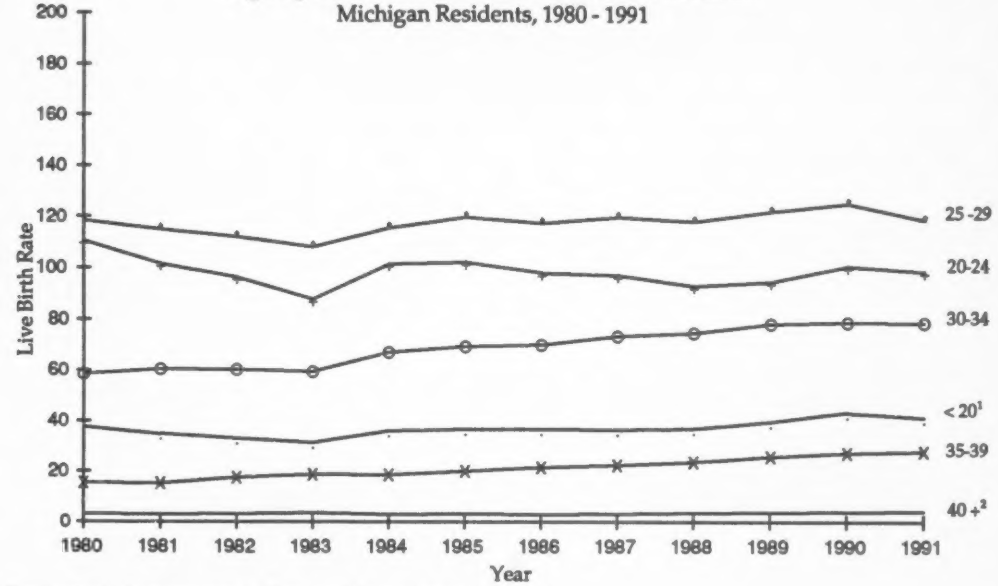
[1] Based on live births to women under 20 and population of females 15-19.

[2] Based on live births to women 40 and over and population of females 40-44.

Figure 1.6

Age-Specific Live Birth Rates to White Mothers

Michigan Residents, 1980 - 1991



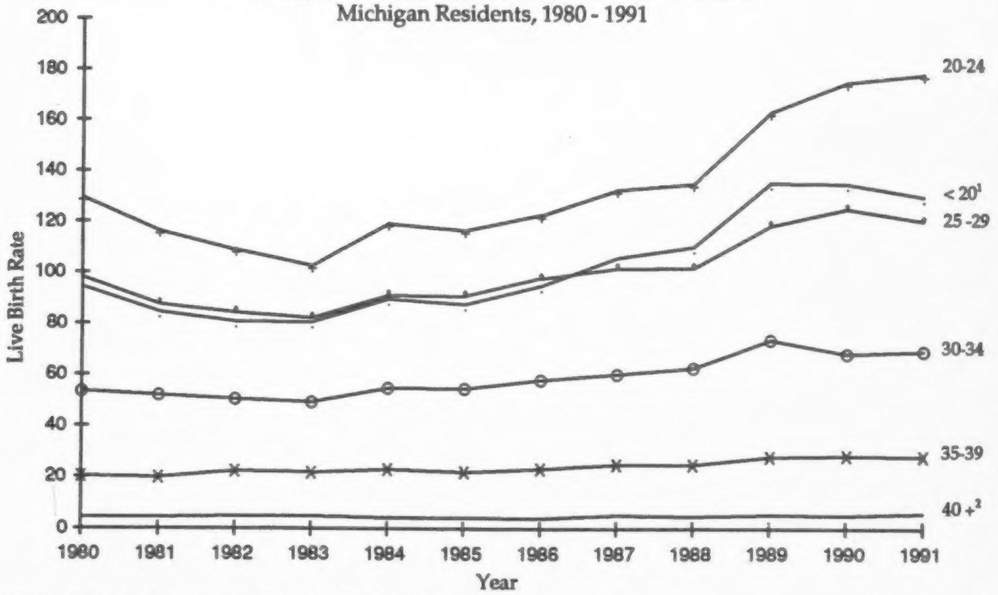
[1] Based on live births to women under 20 and population of females 15-19.

[2] Based on live births to women 40 and over and population of females 40-44.

Figure 1.7

Age-Specific Live Birth Rates to Black Mothers

Michigan Residents, 1980 - 1991



[1] Based on live births to women under 20 and population of females 15-19.

[2] Based on live births to women 40 and over and population of females 40-44.

BIRTH ORDER

The percent of live births which were first-order births is displayed in Figure 1.8 for Michigan and the United States for the period since 1960. Between 1960 and 1980, the percent of first-order births increased from 22.9 to 42.4 in Michigan. Then the percentage generally decreased to 39.3 in 1991, the lowest proportion since 1972.

INTERPREGNANCY TIME PERIOD

In 1991 women having live births whose most recent prior termination was a fetal death had a median time span of 1 year and 11 months between their previous termination and a live birth (Table 1.6). This compares to a median of 2 years 6 months for prior live births. Although 1 to 2 years was the modal time span for both groups, the percent of women with prior fetal deaths in this interval (41.3) was much larger than that for women with prior live births (31.8). The greatest relative difference was associated with time spans of less than one year. A spacing of less than one year was observed for 11.7 percent of all women reporting their most recent prior pregnancy as a fetal death. This compares to 2.4 percent of all women reporting their most recent prior pregnancy as a live birth.

Figure 1.8

First Births as a Percentage of All Live Births

Michigan Residents, 1960 - 1991 and
United States Residents, 1960 - 1990

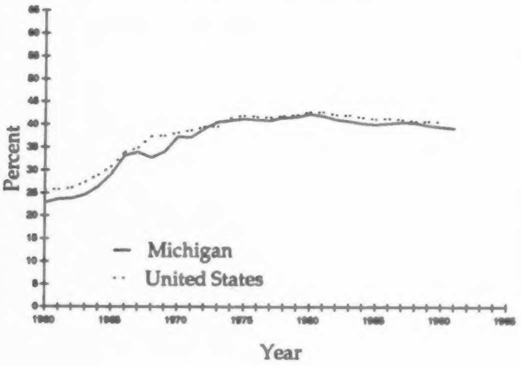


Table 1.6

Live Births to Women Reporting Prior Pregnancy Terminations[1] by Time Span Between Last and Current Termination and by Whether Prior Termination Resulted in a Live Birth or a Fetal Death[2]

Michigan Residents, 1991[3]

Time Span In Years	Total		Prior Fetal Death		Prior Live Birth	
	Number	%	Number	%	Number	%
Total	99,585	100.0	24,677	100.0	74,908	100.0
< 1	4,637	4.7	2,875	11.7	1,762	2.4
1 < 2	34,048	34.2	10,200	41.3	23,848	31.8
2 < 3	22,925	23.0	3,926	15.9	18,999	25.4
3 < 4	20,650	20.7	3,515	14.2	17,135	22.9
5 +	17,325	17.4	4,161	16.9	13,164	17.6
Median Time Span	2 yrs., 5 mos.		1 yr., 11 mos.		2 yrs., 6 mos.	

[1] Terminations with time spans of zero years (i.e., second or later births in plural deliveries) and terminations with unknown time spans are excluded.

[2] Fetal death as defined for the pregnancy history on the birth record is a fetal death of any gestational age.

[3] The methodology for calculating interpregnancy time span was altered slightly in 1984. Hence, median time spans and percentages are not comparable to statistics published in prior years.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

PRENATAL CARE

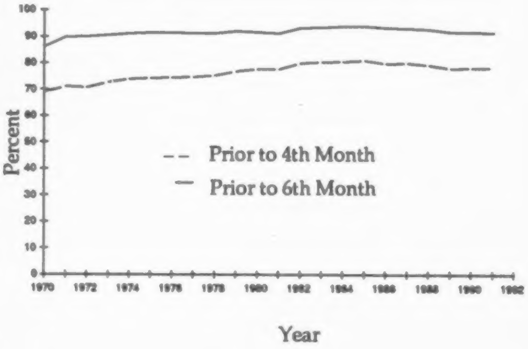
Pregnant women are encouraged to initiate prenatal care during the first trimester and to receive care on a regular, prescribed basis until delivery occurs. The proportion of women delivering live born infants who initially obtained prenatal care in the first trimester of pregnancy was 78.1 percent in 1991. This percentage increased steadily between 1970, when the figure was 69.0, and 1985 when it peaked at 81.0 (Figure 1.9). Since then it has fluctuated between 78.0 and 80.0.

In 1970, 86.0 percent of all live births were to women who received care prior to the sixth month of pregnancy. By 1984 the percent had risen to 93.9 percent. The percentage decreased to 91.6 by 1991.

Figure 1.9

Percent of Women Having Live Births Who Received Care Prior to the 4th Month and 6th Month of Pregnancy

Michigan Residents, 1970 - 1991



The proportion of live births to women receiving early prenatal care varied considerably by race and age of mother (Table 1.7). In 1991, 82.3 percent of infants born to white women compared to 63.4 percent of the infants born to black women were born to mothers who began their prenatal care in the first trimester. Over 84 percent of live births to women 25 to 39 years of age were to women who sought care promptly. The proportion fell to 79.3 percent for women 40 years or over and 41.8 percent for women under 15 years. About six in ten (59.0 percent) live births to mothers 15-19 years of age were to mothers who received care early. Similar patterns in this proportion by age of mother are evident for white, black and all other mothers. However, the highest proportion for black mothers was 72.7 for mothers

Table 1.7

Numbers and Percents of Live Births with Prenatal Care Beginning in the First Trimester by Age and Race of Mother

Michigan Residents, 1991

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Percent[1]	Number	Percent[1]	Number	Percent[1]	Number	Percent[1]	Number	Percent[1]
Under 15	173	41.8	64	51.2	105	37.1	4	66.7	-	-
15-19	11,407	59.0	6,927	62.2	4,314	54.7	155	56.0	11	33.3
20-24	28,640	72.4	21,776	76.1	6,450	62.7	369	64.6	45	59.2
25-29	38,689	84.1	33,212	87.1	4,768	68.6	617	77.9	92	74.2
30-34	27,615	86.2	23,955	88.6	3,093	72.7	459	77.8	108	75.0
35-39	9,011	84.8	7,699	87.9	1,082	68.1	197	83.1	[illegible]	76.7
40 and Over	1,189	79.3	972	83.7	184	65.2	29	61.7	[illegible]	40
Not Stated	28	60.9	20	62.5	8	66.7	-	-	-	-
Total	116,752	78.1	94,625	82.3	20,004	63.4	1,830	72.6	293	68.1

[1] Percent denominators obtained from column numbers in Table 1.2.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 1.8

Numbers and Percents[1] of Live Births with Prenatal Care Beginning in the First Trimester by Age and Ancestry of Mother

Michigan Residents, 1991

Age of Mother in Years	Total		African		American Indian		Arab		European		Hispanic		Other (Ind. American)		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Under 15	173	41.8	68	41.0	1	50.0	2	66.7	14	41.2	9	45.0	73	41.5	6	46.2
15 - 19	11,407	59.0	2,346	53.2	268	61.6	112	77.8	2,883	62.3	461	52.0	4,654	61.1	683	57.0
20 - 24	28,640	72.4	3,566	61.5	548	69.3	437	79.0	11,161	78.2	932	66.0	10,390	72.0	1,606	70.1
25 - 29	38,689	84.1	2,708	67.9	441	79.5	646	84.8	20,408	88.7	877	75.7	11,948	82.5	1,661	81.7
30 - 34	27,615	86.2	1,751	72.5	216	81.5	476	80.8	15,719	89.7	484	77.3	7,913	84.8	1,056	82.4
35 - 39	9,011	84.8	593	68.1	50	71.4	185	81.5	5,169	89.1	181	74.2	2,508	83.1	325	82.5
40 and Over	1,189	79.3	97	63.8	6	60.0	35	72.9	616	84.6	24	64.9	374	78.9	37	72.5
Not Stated	28	60.9	4	50.0	-	-	-	-	7	70.0	1	33.3	3	75.0	13	65.0
Total	116,752	78.1	11,133	62.5	1,530	71.9	1,893	81.3	55,977	84.8	2,969	67.7	37,863	76.4	5,387	74.0

[1] Percent denominators obtained from column numbers in Table 1.3.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

age 30-34, while the rate was 88.6 for their white counterparts.

The proportion of live births to women receiving early prenatal care also varied by ancestry and age of the mother (Table 1.8). In 1991, 62.5 and 67.7 percent, respectively, of live births to women of African and Hispanic ancestry received prenatal care beginning in the first trimester, while 71.9 percent of live births to American Indian women received prompt care. Early prenatal care was received by 84.8 and 81.3 percent, respectively, of live births born to women of European and Arab ancestry.

In 1991, 2,264 resident live births, or 15.1 of every 1,000, occurred with the mother having had no prenatal care (Table 1.9). This figure includes only those where it was specified on the birth record that the mother received no prenatal care. The comparative statistics were 6.3 in 1985 and 22.6 in 1970.

Table 1.9

Live Births with No Prenatal Care by Age and Race of Mother

Michigan Residents, 1991

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]
Under 15	31	74.9	6	48.0	25	88.3	-	-	-	-
15-19	499	25.8	182	16.4	312	39.6	3	*	2	*
20-24	686	17.3	266	9.3	403	39.2	15	26.3	2	*
25-29	536	11.7	207	5.4	322	46.3	4	*	3	*
30-34	341	10.6	129	4.8	206	48.4	3	*	3	*
35-39	144	13.6	54	6.2	86	54.1	2	*	2	*
40 and Over	27	18.0	10	8.6	16	56.7	1	*	-	-
Not Stated	-	-	-	-	-	-	-	-	-	-
Total	2,264	15.1	854	7.4	1,370	43.4	28	11.1	12	27.9
Median Age at Last Birthday	24		24		24		22		27	

[1] Ratio denominators obtained from column numbers in Table 1.2.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Those who received no prenatal care were for the most part younger mothers (median age of 24). Also, the lack of prenatal care was disproportionately high among black mothers. The ratio of live births in which the mother received no prenatal care to the total number of live births was 5.9 times greater for black mothers than for white mothers in 1991. The ratio was 3.9 times higher for black mothers than for mothers of all other races.

A measure of the quality of care has been developed by Dr. D. W. Kessner which combines information on the month prenatal care began, the gestational age at birth and the number of prenatal visits (see Technical Notes). Adequate prenatal care was obtained by mothers of 71.7 percent of the live births (Table 1.10). The proportion of live births to white mothers who received adequate care (76.2 percent) was higher than the corresponding proportion for black mothers (56.4 percent) and mothers of all other races (65.0 percent). Inadequate care was received by the mothers of 7.3 percent of all live births. The proportions of live births to mothers who received inadequate care were 5.3 percent for white mothers, 14.2 percent for black mothers and 9.4 percent for mothers of all other races.

Although the mothers of 78.1 percent of all live births received prenatal care during the first trimester, only 71.7 percent received adequate care as defined by the Kessner Index. Overall, this means that of the mothers who initiated prenatal care most promptly, 8.1 percent did not receive the minimum number of visits they should have received.

As a percentage of mothers who initiated care in the first trimester, 7.5 percent of white mothers failed to receive an adequate number of prenatal visits during the pregnancy. The percentages for black mothers and mothers of all other races were 11.1 and 10.4, respectively (Tables 1.7 and 1.10).

Considered as a proportion of the live births to mothers who did not receive adequate care, 22.5 percent of the live births to mothers not receiving adequate care were to mothers who initiated care within the recommended first trimester, but did not continue to receive the appropriate minimum number of prenatal care visits. The percentages were 25.7, 16.2 and 21.5 percent, respectively, for mothers of white, black and all other races.

Table 1.10

Numbers and Percents of Live Births by Level of Prenatal Care and Race of Mother

Michigan Residents, 1991

Level of Prenatal Care (Kessner Index[1])	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Adequate	107,240	71.7	87,569	76.2	17,776	56.4	1,640	65.0	255	59.3
Intermediate	27,049	18.1	18,049	15.7	8,361	26.5	563	22.3	76	17.7
Inadequate	10,863	7.3	6,109	5.3	4,464	14.2	237	9.4	53	12.3
Unknown	4,326	2.9	3,256	2.8	942	3.0	82	3.3	46	10.7
Total	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0

[1] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care.)

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The highest proportions of adequate prenatal care, 78.8 and 74.2 percent, respectively, were obtained by mothers of European and Arab ancestry (Table 1.11). Live births to mothers of African and Hispanic ancestry had the lowest proportions receiving adequate levels of prenatal care, 55.7 and 60.2 percent, respectively. Adequate prenatal care was obtained by 64.6 percent American Indian mothers and 70.1 percent of mothers of all other ancestry groups.

Table 1.11
Numbers and Percents of Live Births by Level of Prenatal Care and Ancestry of Mother
Michigan Residents, 1991

Level of Care	Total		African		American Indian		Arab		European		Hispanic		Other (Incl. American)		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adequate	107,240	71.7	9,914	55.7	1,375	64.6	1,726	74.2	52,028	78.8	2,641	60.2	34,741	70.1	4,815	66.1
Intermediate	27,049	18.1	4,941	27.7	492	23.1	363	15.6	9,346	14.2	1,144	26.1	9,284	18.7	1,479	20.3
Inadequate	10,863	7.3	2,431	13.7	181	8.5	163	7.0	2,947	4.5	474	10.8	4,035	8.1	632	8.7
Unknown	4,326	2.9	523	2.9	80	3.8	75	3.2	1,681	2.5	129	2.9	1,482	3.0	356	4.9
Total	149,478	100.0	17,809	100.0	2,128	100.0	2,327	100.0	66,002	100.0	4,388	100.0	49,542	100.0	7,282	100.0

Source: Office of the State Registrar and Center for Health Statistics, MDPH

For mothers of Hispanic ancestry, 11.0 percent who began prenatal care during the first trimester, failed to receive adequate care. The percentages for African mothers, American Indian mothers and Arab mothers were 10.9, 10.1 and 8.8 percent, respectively. In 7.1 and 8.2 percent mothers of European ancestry and all other ancestry groups, respectively, the mother began prenatal care early, but did not receive adequate care (Tables 1.8 and 1.11)

BIRTH WEIGHT

The mean weight for all live births was 3,331.0 grams or approximately 7 pounds 5 ounces (Table 1.12). The median weight was 3,374 grams or about 7 pounds 7 ounces. For infants of black mothers the mean (3,054.5 grams) and median (3,120 grams) birth weights were much lower than the mean and median birth weights for infants of white mothers (3,407.8 and 3,430 grams, respectively). For infants of mothers of all other races, the mean and median birth weights were about 114 and 135 grams less than the mean and median for infant born to white mothers, but were 240 and 175 grams higher than the birth weights of infants born to black mothers.

Table 1.12
Live Births by Birth Weight and Race of Mother
Michigan Residents, 1991

Weight at Birth in Grams	Race of Mother				
	Total	White	Black	All Other	Not Stated
< 1,500	2,326	1,172	1,129	16	9
1,500-2,499[1]	9,380	5,481	3,729	145	25
2,500+	137,589	108,206	26,637	2,358	388
Not Stated	183	124	48	3	8
Total	149,478	114,983	31,543	2,522	430
Mean Weight	3,331.0	3,407.8	3,054.5	3,294.1	3,265.4
Median Weight	3,374	3,430	3,120	3,295	3,333

[1] In order to conform to national standards, the definition of low birth weight was changed in 1984 to less than 2,500 grams.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Birth weight data by ancestry of the mother are displayed in Table 1.13. The mean birth weight for babies born to mothers of European ancestry was 3,439.1 grams and the median birth weight was 3,459 grams. The mean and median birth weight of babies born to mothers of African ancestry was 3,071.4 grams and 3,147 grams, respectively. Mean and median birth weights for American Indians, Arab and Hispanic babies were very similar and between the means and medians for infants of European and African mothers.

A subgroup of major importance when analyzing birth weight trends is the category of infants weighing less than 2,500 grams (approximately 5 pounds 8 ounces or less) at birth. Such infants have historically experienced higher mortality in their first year of life than heavier infants.

Figure 1.10 displays the low birth weight ratio for Michigan and the United States over the last thirty-two years. In 1960 this ratio was 72.0 for Michigan. Between 1960 and 1966 the ratio increased, reaching a high for

Table 1.13

Numbers and Percents of Live Births by Birth Weight and Ancestry of Mother

Michigan Residents, 1991

Weight at Birth in Grams	Total		African		American Indian		Arab		European		Hispanic		Other (Incl. American)		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Under 1,500	2,326	1.6	574	3.2	24	1.1	19	0.8	526	0.8	41	0.9	1,060	2.1	82	1.1
1,500 - 2,499[1]	9,380	6.3	2,027	11.4	109	5.1	91	3.9	2,774	4.2	240	5.5	3,738	7.5	401	5.5
2,500 +	137,589	92.0	15,181	85.2	1,993	93.7	2,214	95.1	62,640	94.9	4,099	93.4	44,688	90.2	6,774	93.0
Not Stated	183	0.1	27	0.2	2	0.1	3	0.1	62	0.1	8	0.2	56	0.1	25	0.3
Total	149,478	100.0	17,809	100.0	2,128	100.0	2,327	100.0	66,002	100.0	4,388	100.0	49,542	100.0	7,282	100.0
Mean Weight	3,331.0		3,071.4		3,366.5		3,339.5		3,439.1		3,340.7		3,271.4		3,371.2	
Median Weight	3,374		3,147		3,391		3,345		3,459		3,368		3,317		3,402	

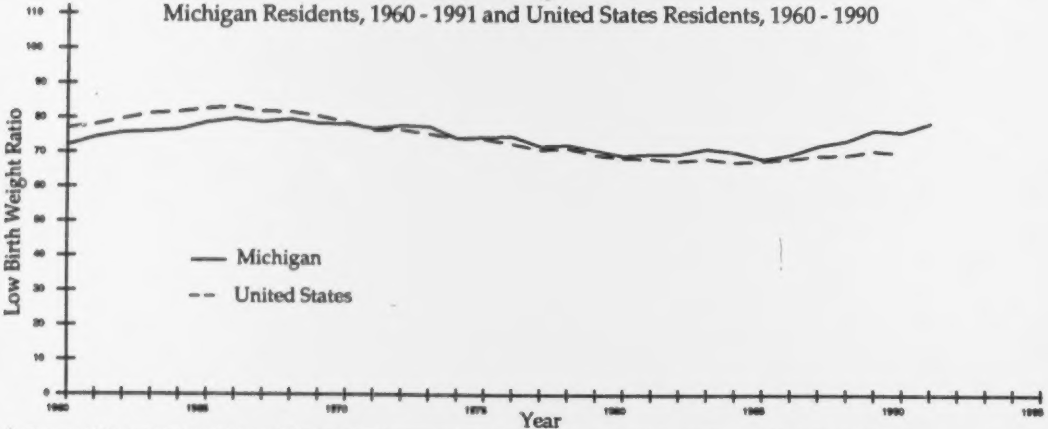
[1] In order to conform to national standards, the definition of low birthweight was changed in 1984 to less than 2,500 grams.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 1.10

Low Birth Weight[1] Ratios

Michigan Residents, 1960 - 1991 and United States Residents, 1960 - 1990



[1] Prior to 1984, low birth weight was defined as 2,500 grams or less. Starting with year 1984, low birth weight is defined as less than 2,500 grams in order to conform to national standards.

the 32 year period (79.8). The ratio generally declined until 1985 when the ratio was 68.1, the lowest rate since 1960. It rose to 78.3 in 1991. The pattern for the United States has been similar. The ratio increased from 76.9 in 1960 to 83.3 in 1966, and declined to 67.1 in 1984. By 1990 the low birth weight ratio for the nation had increased to 69.6. The ratio for the United States was above that for Michigan each year from 1960 through 1970. Since then the ratio for the nation has been the same or lower than that of Michigan.

The low birth weight ratio for infants of black mothers was 154.0 compared with 57.9 for infants of white mothers and 63.8 for infants born to mothers of all other races (Table 1.14).

The low birth weight ratio varied by adequacy of prenatal care as indicated by the Kessner Index. The ratios were 1.8 and 2.2 times higher for infants born to black and white mothers, respectively, with inadequate care than to mothers with adequate prenatal care. The ratios were 1.4 and 1.7 times higher for infants born to black and white women, respectively, with intermediate care than for women with adequate care. For infants born to women of all other races the ratio of low birth weight for women who received inadequate care was 1.4 times higher than the ratio for their counterparts who received adequate care.

At birth, 15.4 percent of the infants born to black women weighed less than 2,500 grams. Of infants born to black women with adequate care, a lower percentage (13.1) weighed less than 2,500 grams. The low weight ratio for infants born to black women with adequate care was higher than the ratio for infants born to white women and women of all other races at any level of prenatal care. The low birth weight ratio was 2.6 and 2.2 times higher for infants born to black women with adequate care than for corresponding white and all other women.

Table 1.14

Low Weight[1] Live Births and Low Birth Weight Ratios by Level of Prenatal Care and Race of Mother

Michigan Residents, 1991

Level of Prenatal Care (Kessner Index[2])	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Ratio[3]	Number	Ratio[3]	Number	Ratio[3]	Number	Ratio[3]	Number	Ratio[3]
Adequate	6,820	63.6	4,387	50.1	2,320	130.5	97	59.1	16	62.7
Intermediate	3,102	114.7	1,576	87.3	1,473	176.2	42	74.6	11	144.7
Inadequate	1,718	158.2	666	109.0	1,025	229.6	20	84.4	7	132.1
Unknown	66	15.3	24	7.4	40	42.5	2	*	-	-
Total	11,706	78.3	6,653	57.9	4,858	154.0	161	63.8	34	79.1

[1] Less than 2,500 grams.

[2] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

[3] Ratio denominators obtained from column numbers in Table 1.10.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

CONGENITAL ANOMALIES

One or more congenital anomalies were reported on the birth certificate for 2,495 of the 149,478 resident live births in 1991 (Table 1.15). This translates to a rate of 166.9 per 10,000 live births.

The method of reporting congenital anomalies on the birth record was altered with the 1989 birth certificate. In years prior to 1989 congenital anomalies were written in a blank space provided for this information. The write-in information was coded using an appropriate version of the International Classification of Disease (ICD). Starting in 1989, however, a check-box format with detailed lists of congenital anomalies was implemented in reporting congenital anomalies.

The 1989 and later congenital anomalies rates obtained by this modification are not, therefore, comparable to rates obtained in previous years. Particularly, any increase in the overall congenital anomalies rate or the rate of specific types of anomalies compared to previous years can not automatically be considered an increase in the proportion of congenital anomalies occurring. It is most likely that such an increase is a consequence of the more diligent reporting of congenital anomalies.

While the check-box reporting format may help reduce the level of underreporting of congenital anomalies, it is still true that the frequency of reporting of specific anomalies is affected by the reporting schedule. Many conditions may not be apparent at the time the birth certificate is completed and filed.

The congenital anomaly rate of 181.9 per 10,000 live births for live births to white mothers was 63.9 percent higher than the rate of 111.0 for live births to black mothers and 9.2 percent higher than the rate of 166.5 for live births to mothers of races other than black or white.

The rates for all races combined varied with the age of the mother. The lowest rates were experienced by mothers 20 - 24 years of age. Rates rose slightly for mothers up to age 35, then they rose sharply.

Table 1.15

Live Births with Congenital Anomalies Reported and Congenital Anomaly Rates[1] by Age and Race of Mother

Michigan Residents, 1991

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Unknown	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
< 15	9	217.4	3	*	6	212.0	-	-	-	-
15-19	323	167.1	212	190.5	106	134.4	4	*	1	*
20-24	590	149.2	482	168.5	97	94.3	11	192.6	-	-
25-29	794	172.6	703	184.4	74	106.5	12	151.5	5	*
30-34	538	168.0	477	176.4	47	110.5	11	186.4	3	*
35-39	208	195.7	186	212.4	17	107.0	3	*	2	*
40 +	33	220.0	29	249.8	3	*	1	*	-	-
Not Stated	-	-	-	-	-	-	-	-	-	-
Total	2,495	166.9	2,092	181.9	350	111.0	42	166.5	11	255.8
Median Age at Last Birthday	27		27		22		26		29	

[1] Number of live births with congenital anomalies reported per 10,000 live births.

[2] Rate denominator obtained from column numbers in Table 1.3.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

MEDICAL FACTORS ASSOCIATED WITH DELIVERY AND/OR LABOR

Prior to 1989 numbers of deliveries with specific types of labor or delivery related complications were obtained from write-in entries in three boxes on the live birth certificate: Complications of pregnancy, Concurrent illness or conditions affecting this pregnancy, and Complications of labor and/or delivery. In 1989 these write-in items were generally replaced by a series of check-box items intended to capture more accurately and comprehensively information on medical risk factors, behavioral risk factors, complications of labor and/or delivery, obstetrical procedures, method of delivery and abnormal fetal conditions (see Figure 4.3). Even with the move to check responses to specifically presented items, there were a few items best captured by write-in responses such as five minute Apgar score and weight gain during pregnancy.

There were 41,882 deliveries (28.0 percent) reported with one or more complications of labor and/or delivery in 1991 (Table 1.16). Among the most commonly reported complications were meconium, moderate/heavy (8,084 cases); breech/malpresentation of fetus (6,096 cases); fetal distress (5,991 cases): and premature rupture of membranes (5,229 cases).

The proportions of live births for which there was at least one complication were relatively similar for women of different races (Table 1.16). The types of complications which were most common were also very similar among mothers of different races, although the exact ordering by frequency of occurrence varied somewhat for mothers of differing races.

Table 1.16

Numbers and Percents of Live Births by Complications of Labor/Delivery and Race of Mother

Michigan Residents, 1991

Complications of Labor/Delivery	Total		White		Black		Other		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%
Meconium, moderate/heavy	8,084	5.4	5,582	4.9	2,364	7.5	126	5.0	12	2.8
Breech/malpresentation	6,096	4.1	5,062	4.4	898	2.8	102	4.0	34	7.9
Fetal distress	5,991	4.0	4,329	3.8	1,549	4.9	92	3.6	21	4.9
Premature rupture of membranes (>12 hours)	5,229	3.5	4,045	3.5	1,076	3.4	98	3.9	10	2.3
Dysfunctional labor	4,527	3.0	3,853	3.4	550	1.7	89	3.5	35	8.1
Cephalopelvic disproportion	4,482	3.0	3,892	3.4	501	1.6	77	3.1	12	2.8
Precipitate labor(<3 hours)	2,908	1.9	2,415	2.1	431	1.4	52	2.1	10	2.3
At least one complication	41,882	28.0	32,731	28.5	8,285	26.3	732	29.0	134	31.2
Total Live Births	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The mother smoked while pregnant for 21.5 percent (32,155) of the live births in 1991 (Table 1.17). This data is consistant with statewide sample survey data. The mother drank alcohol while pregnant for 2.8 percent (4,144) of the live births. It is generally believed that reported numbers of mothers who drank while pregnant as obtained from certificates of live birth underreport the frequency of these risk factors. A weight gain during pregnancy of less than sixteen pounds was reported for mothers of 8.8 percent (13,211) of the live births.

The reported percentage of live births whose mothers smoked while pregnant was relatively similar for white and black mothers (22.0 and 20.2 percent, respectively). Mothers of other races were reported to smoke during pregnancy considerably less than white or black mothers (15.3 percent). A weight gain of less than sixteen pounds was most common among black mothers (14.6 percent), followed by mothers of other races (8.6 percent) and white mothers (7.3 percent).

For 20.9 percent (31,279) of the 149,478 resident live births occurring in 1991, the mother had at least one medically relevant risk factor (Table 1.18). The most commonly specified medical risk factor was pregnancy related hypertension which occurred in mothers of 3.0 percent (4,490) of the live births. The next most common maternal medical risk factors were diabetes and anemia which occurred in mothers of 2.6 percent (3,849) and 1.6 percent (2,359) of the live births. Drug abuse was reported in 1.2 percent of all live births.

The most common maternal medical risk factors varied somewhat among races. Pregnancy related hypertension was the most common risk factor for white mothers (3.2 percent); drug abuse was most common for black mothers (3.8 percent); and diabetes was most common for mothers of all other races (3.5 percent).

Vaginal delivery was the most common method of delivery in 1991, accounting for 77.8 percent of the live births (Table 1.19). Of the vaginal deliveries, 3.1 percent were to mothers who had previously had a Caesarian section (C-section). Primary C-sections were performed in the case of 13.0 percent of the live births and repeat C-sections were performed in 8.4 percent of the live births.

Table 1.17
Numbers and Percents of Live Births by Maternal Risk Factors and Race of Mother
Michigan Residents, 1991

Maternal Risk Factors	Total		White		Black		Other		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%
Mother smoked while pregnant	32,155	21.5	25,330	22.0	6,374	20.2	386	15.3	65	15.1
Weight gain less than 16 pounds while pregnant	13,211	8.8	8,363	7.3	4,605	14.6	216	8.6	27	6.3
Mother drank alcohol while pregnant	4,144	2.8	2,987	2.6	1,096	3.5	53	2.1	8	1.9
Total Live Births	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 1.18
Numbers and Percents of Live Births by Race of Mother and Medical Risk Factors
Michigan Residents, 1991

Risk Factors	Total		White		Black		Other		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%
Hypertension, pregnancy-associated	4,490	3.0	3,675	3.2	754	2.4	53	2.1	8	1.9
Diabetes	3,849	2.6	3,244	2.8	487	1.5	89	3.5	29	6.7
Anemia (Hct. 30/Hgb. 10)	2,359	1.6	1,373	1.2	933	3.0	47	1.9	6	1.4
Previous preterm or small-for-gestational age infant	1,833	1.2	1,501	1.3	299	0.9	27	1.1	6	1.4
Drug abuse	1,767	1.2	547	0.5	1,213	3.8	5	0.2	2	0.5
Previous infant 4000+ grams	1,484	1.0	1,389	1.2	72	0.2	22	0.9	1	0.2
Uterine bleeding	1,480	1.0	1,232	1.1	220	0.7	24	1.0	4	0.9
At least one medical risk[1]	31,279	20.9	23,091	20.1	7,611	24.1	476	18.9	101	23.5
Total Live Births	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0

[1] Does not equal the sum of risk factors specified because mothers may have multiple risk factors.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Forceps and vacuum assistance were each used in 2.6 percent of live birth deliveries.

Black mothers had the smallest proportion of live births delivered by C-section, either primary or repeat (19.0 percent). Mothers other than white or black had the greatest proportion of live births delivered with the aid of forceps or vacuum (6.2 percent).

Table 1.19
Numbers and Percents of Live Births by Method of Delivery and Race of Mother
Michigan Residents, 1991

Procedures During and Methods of Delivery	Total		White		Black		Other		Unknown	
	Number	%	Number	%	Number	%	Number	%	Number	%
Procedures										
Forceps	3,815	2.6	3,331	2.9	405	1.3	67	2.7	12	2.8
Vacuum	3,884	2.6	3,299	2.9	485	1.5	88	3.5	12	2.8
Method										
Vaginal	112,688	75.4	85,588	74.4	24,847	78.8	1,943	77.0	310	72.1
Primary C-section	19,478	13.0	15,300	13.3	3,793	12.0	321	12.7	64	14.9
Repeat C-section	12,605	8.4	10,187	8.9	2,198	7.0	183	7.3	37	8.6
Vaginal birth after previous C-section	3,572	2.4	2,898	2.5	608	1.9	63	2.5	3	0.7
Unknown	1,135	0.8	1,010	0.9	97	0.3	12	0.5	16	3.7
Total Live Births	149,478	100.0	114,983	100.0	31,543	100.0	2,522	100.0	430	100.0

Source: Office of the State Registrar and Center for Health Statistics, MDPH

In 1991, 8,738 babies were born with at least one recorded abnormal condition at birth for a rate of 584.6 per 10,000 live births (Table 1.20). The highest rate for a specified abnormal condition was associated with live births having a five minute Apgar score of less than 7 (158.1 per 10,000). The next two highest rates, 119.1 and 99.8 were associated with assisted ventilation of less than 30 minutes and hyaline membrane disease/RDS (Respiratory Distress Syndrome), respectively.

The rate of live births to black mothers with at least one abnormal condition, 622.3, was 8.0 percent greater than the rate for live births to white mothers, 576.1 and 30.8 percent greater than the rate for live births to mothers of all other races, 475.8

Table 1.20

Numbers and Rates[1] of Live Births With Abnormal Conditions by Race of Mother

Michigan Residents, 1991

Abnormal Conditions	Total		White		Black		Other		Unknown	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
5 minute Apgar <7	2,363	158.1	1,443	125.5	887	281.2	28	111.0	5	*
Assisted ventilation <30 minutes	1,781	119.1	1,421	123.6	327	103.7	21	83.3	12	279.1
Hyaline membrane disease/RDS	1,492	99.8	1,037	90.2	431	136.6	18	71.4	6	139.5
Assisted ventilation >30 minutes	1,116	74.7	849	73.8	254	80.5	11	43.6	2	*
Meconium aspiration syndrome	556	37.2	322	28.0	220	69.7	14	55.5	-	-
At least one condition	8,738	584.6	6,624	576.1	1,963	622.3	120	475.8	31	720.9
Total Live Births	149,478		114,983		31,543		2,522		430	

[1] Rate is per 10,000 live births.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

PLACE OF OCCURRENCE

Of some confusion to persons not familiar with vital records data is the difference between occurrence and residence figures. Information on events to residents of Michigan that occur throughout the country and, in some instances, outside United States boundaries, is collected in order to obtain the full scope of activity for the state population.

In 1991 1,405 Michigan resident live births occurred outside the state. Information on these events was forwarded to the state of Michigan for statistical purposes only. While only 0.9 percent of the total for the state was involved, statistics for the counties on Michigan's southern and northwestern borders would be strongly affected were this information not available.

Table 1.21 shows that births in the four border states and Canada comprise 88.8 percent of all resident live births that occurred out of state. Live births to Michigan residents occurred in 39 of the 50 states in 1991.

Table 1.21

Michigan Live Births

Occurring Outside Michigan to Michigan Residents by Place of Occurrence, and Occurring in Michigan to Non-Michigan Residents by Place of Residence, 1991

Geographic Area	Live Births To Residents Occurring Outside Michigan		Live Births To Non-residents Occurring in Michigan	
	Number	Percent	Number	Percent
Total	1,405	100.0	443	100.0
Ohio	841	59.9	50	11.3
Wisconsin	357	25.4	170	38.4
Indiana	41	2.9	74	16.7
Florida	17	1.2	23	5.2
Illinois	8	0.6	15	3.4
Texas	7	0.5	22	5.0
Other States	133	9.5	63	14.2
U.S. Territories	-	-	2	0.5
Canada	1	0.1	14	3.2
Other Countries	-	-	8	1.8
Unknown	-	-	2	0.5

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The number of nonresident live births that occurred in Michigan in 1991 was 443. Information about those events was shared with the appropriate states by the State of Michigan under specific confidentiality guidelines so they might have a complete statistical file on their residents. Births in the four border states comprised 69.8 percent of these events, as shown in Table 1.21. There were live births in Michigan to residents of 32 states, the Virgin Islands and at least 5 foreign countries.

FETAL DEATHS

There were 1,325 fetal deaths reported in Michigan in 1900. The number of reported fetal deaths increased from 1900 through 1927, the peak year in this century, with 3,834 fetal deaths. The reported number of fetal deaths generally decreased in the 1930's, increased in the 1940's and decreased after 1950 (Figure 1.11 and Table 1.22).

In 1991 the number of resident fetal deaths was 775, the second lowest number in the century.

The fetal death ratio for Michigan has declined through most of the twentieth century (Figure 1.12 and Table 4.2). The ratio rose from 30.3 in 1900 to its peak of 43.5 fetal deaths per 1,000 live births in 1905. Through the teens and early twenties, this ratio fluctuated between 38.2 and 42.4. In 1922, Michigan's fetal death ratio was 42.0, marking a turning point, as fetal death ratios have generally declined since that year. The ratio in 1991 was 5.2, the lowest rate in the century.

Figure 1.11
Fetal Deaths
Michigan Residents, 1900 - 1991

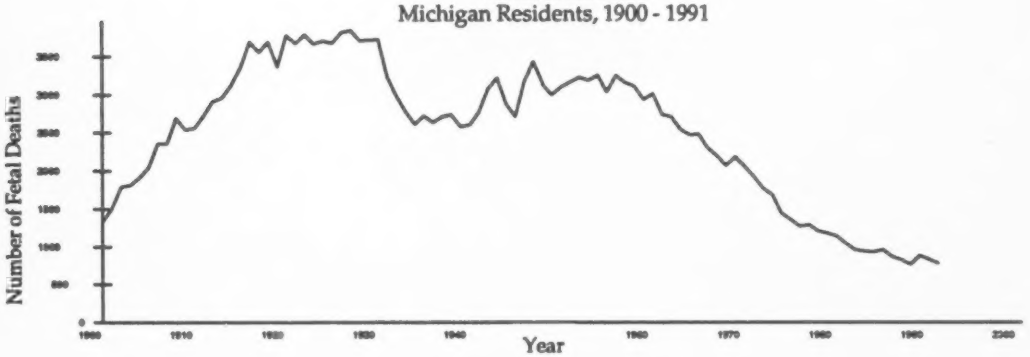
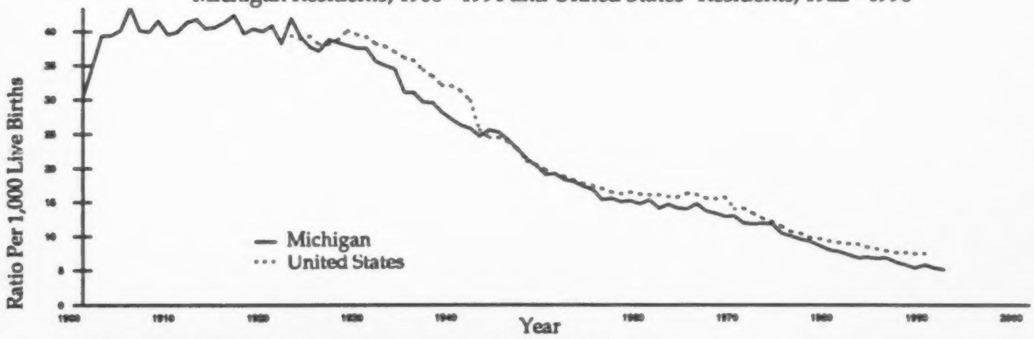


Figure 1.12
Fetal Death Ratios
Michigan Residents, 1900 - 1991 and United States[1] Residents, 1922 - 1990



[1] United States ratios prior to 1933 are for registration areas only. United States ratios are based on three different definitions of fetal death:
1) Prior to 1942 - all reported fetal deaths regardless of period of gestation
2) 1942 to 1968 - fetal deaths with gestation age 20 weeks or more or not stated
3) 1969 to current - fetal deaths of stated or presumed period of gestation of 20 or more weeks

Table 1.22

Fetal Deaths and Fetal Death Ratios

Michigan and United States Residents
Selected Years, 1900-1991

United States		Year	Michigan	
Fetal Deaths	Fetal Death Ratios		Fetal Deaths	Fetal Death Ratios
—	—	1900	1,325	30.3
86,466	39.2	1930	3,714	37.6
68,480	16.1	1960	3,008	15.4
52,961	14.2	1970	2,060	12.0
33,796	10.7	1975	1,356	10.1
33,353	9.2	1980	1,135	7.8
32,596	9.0	1981	1,040	7.4
32,694	8.9	1982	954	6.9
30,752	8.5	1983	933	7.0
30,099	8.2	1984	929	6.8
29,661	7.9	1985	953	6.9
28,972	7.7	1986	865	6.3
29,349	7.7	1987	824	5.9
29,442	7.5	1988	761	5.4
30,469	7.5	1989	881	5.9
N.A.	N.A.	1990	830	5.4
N.A.	N.A.	1991	775	5.2

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Michigan's fetal death ratios have been below the national ratios 59 of the 68 years for which national data are available. The last time the United States ratio was below the Michigan ratio was in 1950. In 1989, the Michigan ratio of 5.9 was 21.3 percent below the national ratio of 7.5. It should be noted that since 1978 fetal deaths in Michigan are comprised of infants born dead who had passed through 20 weeks gestation or weighed 400 grams or more. This definition is different from that of most states. This difference should result in Michigan having slightly higher fetal death rates than would be observed if Michigan had adopted the definition used in most states.

CAUSES OF FETAL DEATH

A classification of fetal deaths by underlying cause of death is contained in Table 1.23. In 1991, 263 of the total 775 deaths were assigned to the category of "other and ill-defined conditions originating in the perinatal period". Nearly half (45.5 percent) of the remaining fetal deaths for which a specific cause was stated were attributed to complications of placenta, cord, and membranes (ICD 762). This is a group of maternal conditions which includes placenta previa, premature separation of the placenta, placental hemorrhage, and compression of the umbilical cord.

Second in frequency was the category maternal complications of pregnancy (ICD 761), which was listed as the cause of 111 fetal deaths. This includes such complications as premature rupture of membranes, multiple pregnancy, and incompetent cervix. An addi-

Table 1.23

Fetal Deaths and Fetal Death Ratios by Underlying Cause of Death

Michigan Residents, 1991

ICD. No.[1]	Cause of Death	Frequency	Ratio[2]
779	Other and ill-defined conditions originating in the perinatal period	263	175.9
762	Fetus or newborn affected by complications of placenta, cord, and membranes	233	155.9
761	Fetus or newborn affected by maternal complications of pregnancy	111	74.3
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	35	23.4
740-759	All congenital anomalies combined	61	40.8
Residual	All other causes	72	48.2
740-779	All Causes	775	518.5

[1] Ninth Revision of the International Classification of Diseases, WHO.

[2] Ratios per 100,000 resident live births.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

tional 35 fetal deaths were caused by disorders relating to maternal conditions which may be unrelated to the pregnancy in 1991.

AGE, RACE AND ANCESTRY OF MOTHER

The overall fetal death rate per 1,000 total births (live births plus fetal deaths) was 5.2 in 1991. In Table 1.24, information is presented by the race of the mother for fetal deaths and live births. It appears that mothers under age 20 and over age 29 and black mothers have a greater risk of delivering a stillborn fetus. The 25-29 age group displayed the lowest rate.

In 1991 the fetal death rate for white mothers was 4.5. The rate for black mothers (6.8) was 51.1 percent higher than the rate for white mothers. The fetal death rate for fetuses born to mothers of races other than black or white was 4.4 percent higher than the rate for white mothers.

If mothers of other ancestry and unknown ancestry are disregarded, mothers of African ancestry had the highest fetal death rate (11.2) in 1991. Mothers of European ancestry had the lowest fetal death rate overall (3.6). Again, caution should be used in interpreting fetal death rates for individual ancestry categories, because on 119 fetal deaths (1 in 7 records) ancestry of the mother was not known, (Table 1.24). Of those fetal deaths whose mothers' ancestries were unknown, 79.8 percent (95) were to white mothers, 6.7 percent (8) to black mothers and 13.4 percent (16) were to mothers of unknown race.

Table 1.24

Fetal Deaths, Total Births and Fetal Death Rates by Age, Race and Ancestry of Mother

Michigan Residents, 1991

Age and Race of Mother	Fetal Deaths	Total Births	Rate Per 1,000 Total Births
Age			
Under 15 Years . . .	4	418	*
15-19 Years	101	19,426	5.2
20-24 Years	191	39,737	4.8
25-29 Years	200	46,195	4.3
30-39 Years	225	42,877	5.2
40 or Over	16	1,516	10.6
Not Stated	38	84	452.4
Race			
White	519	115,502	4.5
Black	216	31,759	6.8
All Other Races . . .	12	2,534	4.7
Not Stated	28	458	61.1
Ancestry			
African	201	18,010	11.2
American Indian . .	16	2,144	7.5
Arab	11	2,338	4.7
European	239	66,241	3.6
Hispanic	26	4,414	5.9
Other	163	49,705	3.3
Unknown	119	7,401	16.1
Total	775	150,253	5.2

Source: Office of the State Registrar and Center for Health Statistics, MDPH

MEDICAL AND OTHER RISK FACTORS FOR FETAL DEATHS

In 1991, 334 fetal deaths, or 43.1 percent of all fetal deaths, occurred to women who were reported to have at least one medical or other birth-related risk factor (Table 1.25). Besides the Other category of risk factor which was reported for 331 fetal deaths, the most frequent risk factor mentioned was tobacco use during pregnancy which was reported in 26.8 percent (208) of all fetal deaths. The next most common risk factor associated with fetal deaths was alcohol use during pregnancy (49 fetal deaths).

The highest rate of fetal deaths associated with risk factors occurred among women giving birth with reported hydramnios/oligohydramnios (39.3). The next highest fetal death rates were to women with reported uterine bleeding (23.6) and anemia (16.1). Relatively low fetal death rates were noted for women using tobacco during pregnancy.

Table 1.25
Numbers and Percents of Fetal Deaths, and Fetal Death Rates by Medical and Other Risk Factors
Michigan Residents, 1991

Risk Factors of Mother	Number of Fetal Deaths	Percent of Fetal Deaths	Fetal Death Rate
Tobacco use during pregnancy	208	26.8	6.5
Alcohol use during pregnancy	49	6.3	11.8
Hydramnios/Oligohydramnios	47	6.1	39.3
Anemia(Hct./Hgb.)	38	4.9	16.1
Uterine Bleeding	35	4.5	23.6
All Other Risk Factors	331	42.7	10.4
At least one complication	334	43.1	10.7

Source: Office of the State Registrar and Center for Health Statistics, MDPH

PRENATAL CARE

The proportion of all fetal deaths in 1991 that were to women who reported receiving care prior to the fourth month of pregnancy was 62.7 with 74.6 percent receiving care prior to the sixth month (Figure 1.13). The percentage of fetal deaths in which the mother received care prior to the fourth and sixth month generally increased from 1970 through 1973, declined between 1973 and 1976, and generally increased again between 1976 and 1982 (Figure 1.13). Both percentages declined between 1983 and 1986 to the lowest level in the decade. By 1991 the percentages returned to the percentages observed in the early 1980's.

However the percentage of live births in which the mother received care prior to the fourth month increased between 1970 and 1985 to 81.0 percent, declined to 79.8 percent in 1986, increased to 80.0 in 1987 and declined to 78.1 in 1991. The percentage of live births in which the mother received care prior to the sixth month increased to 93.9 percent in 1985 then declined to 91.6 in 1991 (Figure 1.9).

The relationship between the fetal death rates and the Kessner Index of adequacy of care is displayed in Table 1.25. The fetal death rate increased as the quality of prenatal care measured by the Kessner Index decreased. The rate was 3.1 per 1,000 total births (fetal deaths and live births) born to

Figure 1.13
Percent of Women Having Fetal Deaths who Received Care Prior to the 4th Month and the 6th Month of Pregnancy
Michigan Residents, 1970 - 1991

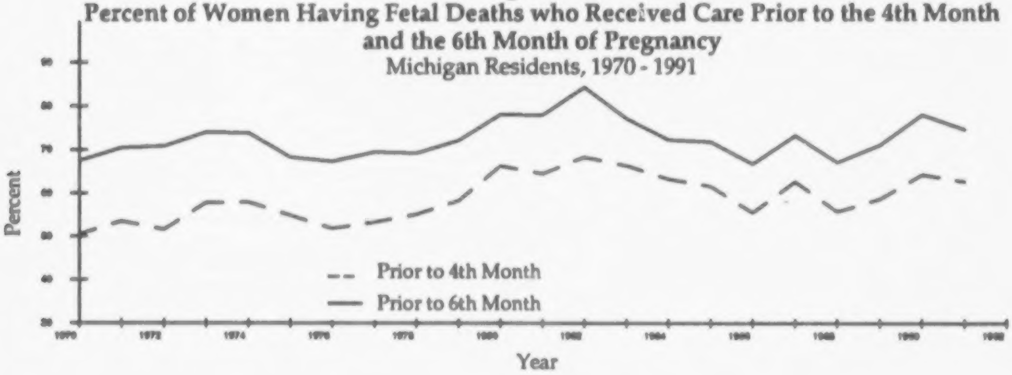


Table 1.26
Fetal Deaths, Total Births and Fetal Death Rates by Level of Prenatal Care and Race[1] of Mother
Michigan Residents, 1991

Level of Care (Kessner Index[2])	Race of Mother											
	All Races			White			Black			All Other		
	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates
Adequate	333	107,573	3.1	265	87,834	3.0	56	17,832	3.1	6	1,646	3.6
Intermediate	172	27,221	6.3	110	18,159	6.1	49	8,410	5.8	3	566	*
Inadequate	180	11,043	16.3	89	6,198	14.4	79	4,543	17.4	2	239	*
Unknown	90	4,416	20.4	55	3,311	16.6	32	974	32.9	1	83	*
Total	775	150,253	5.2	519	115,502	4.5	216	31,759	6.8	12	2,534	4.7

[1] Race not stated included in total columns only.

[2] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits, and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Center for Health Statistics, MDPH

women receiving adequate prenatal care. The rate increased to 6.3 and 16.3 for births to women receiving intermediate and inadequate levels of care respectively.

The fetal death rate was slightly higher for black mothers (3.1 percent) than for white mothers (3.0 percent) receiving an adequate level of care. For white mothers receiving intermediate levels of care, the fetal death rate was 5.2 percent higher than for black mothers receiving the same level of care. The fetal death rate was 20.8 percent higher for black mothers than for white mothers receiving inadequate levels of care.

Table 1.27

Fetal Deaths by Fetal Weight

Michigan Residents, 1991

Weight in Grams	Fetal Deaths	Cum. Percent
Less than 1,500	480	61.9
1,500-2,499 Grams	110	76.1
2,500 or More	171	98.2
Unknown	14	100.0
Total	775	100.0

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Overall, the proportion of live births born to women receiving adequate care in 1991 was 71.7 percent while 43.0 percent of the fetal deaths were to women with adequate prenatal care. Since the Kessner Index reduces the minimum number of prenatal visits required to meet the definition of adequate care when gestational age at birth is less than 36 weeks, the percentage of fetal deaths for women with adequate prenatal care should not be affected by the shorter gestational age experienced by many fetal deaths.

FETAL WEIGHT

Among live births, the percentage of infants weighing less than 2,500 grams at birth was 7.8. The comparable percent among fetal deaths was 76.1 (Table 1.27).

MORTALITY

SECTION II

MORTALITY

AN OVERVIEW, 1991

Resident Deaths	79,738
Crude Death Rate	8.6
Infant Deaths	1,554
Infant Death Rate	10.4
Neonatal Deaths	1,003
Neonatal Death Rate	6.7
Perinatal Deaths	1,620
Perinatal Death Rate	10.8
Maternal Deaths	16
Maternal Death Rate	1.1
Deaths from Heart Disease per Day	75.4
Deaths from Cancer per Day	52.6
Deaths from Stroke per Day	14.2
Deaths from Accidents per Day	8.2
Median Age at Death	74
Median Age at Death for Males	71
Median Age at Death for Females	77

Table 2.1

Number of Deaths and Crude Death Rates

Michigan and United States Residents, 1970 - 1991

United States		Year	Michigan	
Number	Rate		Number	Rate
1,921,031	9.5	1970	76,321	8.6
1,927,542	9.3	1971	77,395	8.6
1,963,944	9.4	1972	79,210	8.8
1,973,003	9.3	1973	78,522	8.7
1,934,388	9.1	1974	76,143	8.4
1,892,879	8.8	1975	74,522	8.2
1,909,440	8.8	1976	75,801	8.3
1,899,597	8.6	1977	74,144	8.1
1,927,788	8.7	1978	74,773	8.1
1,913,841	8.5	1979	73,480	7.9
1,989,841	8.8	1980	74,991	8.1
1,977,981	8.6	1981	75,818	8.2
1,974,797	8.5	1982	75,536	8.2
2,019,201	8.6	1983	76,639	8.4
2,039,369	8.6	1984	76,401	8.4
2,086,440	8.7	1985	78,635	8.7
2,105,361	8.7	1986	80,177	8.8
2,123,323	8.7	1987	79,795	8.7
2,167,999	8.8	1988	80,075	8.7
2,150,466	8.7	1989	78,566	8.5
2,148,463	8.6	1990	78,501	8.4
2,165,000[1]	8.5[1]	1991	79,738	8.6

[1] Provisional data

Source: Office of the State Registrar and Center for Health Statistics, MDPH

In 1991 there were 79,738 deaths recorded for Michigan residents, 1,237 more than in the previous year. The crude death rate per 1,000 population was 8.6 in 1991, 2.4 percent higher than the rate of 8.4 observed in 1990 (Table 2.1). The age-adjusted death rate increased in 1991, being 1.1 percent more than the age-adjusted rate for 1990. This latter rate, the age-adjusted rate, serves as a better measure of mortality than a crude death rate as age-adjusted death rates control for most of the differences or variations in the age composition of the populations.

There were 1,554 infant deaths in 1991, 84 fewer than in 1990. The 1991 infant death and neonatal death rates were 2.8 and 4.3 percent lower than the 1990 rates of 10.7 and 7.0 deaths per 1,000 live births, respectively.

Between 1900 and 1991 the number of deaths occurring to Michigan residents increased from 32,453 to 79,738. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the number of resident deaths recorded in 1986 (80,177) was the greatest number of resident deaths for the century.

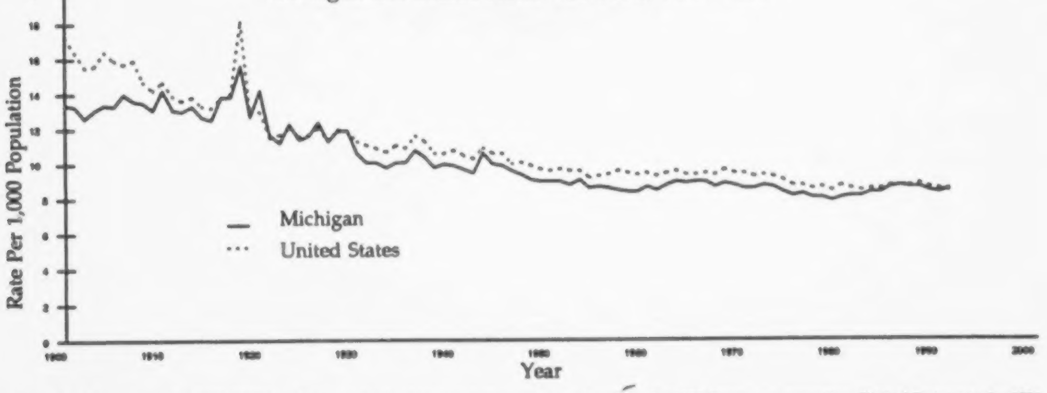
Although the total number of deaths increased between 1900 and 1991, the increase is due to an increasing population. The crude death rate decreased from 13.4 (per 1,000 population) in 1900 to 8.6 in 1991. The 1979 death rate of 7.9 was the lowest crude death rate ever recorded for Michigan. The highest death rate (15.6) was observed in 1918 (Figure 2.1).

A comparison of deaths and crude death rates for Michigan and the United States for the period 1970-1991 is presented in Table 2.1. Between 1970 and 1984, the Michigan rates were below the United States rates. Since 1985 Michigan and United States rates have been equal or close. The Michigan rates were relatively stable between 1970 and 1973, declined 9.2 percent between 1973 and 1979 and then increased to equal the rates in the early-1970's. The national rates followed a similar pattern.

Between 1970 and 1991 the number of Michigan resident deaths increased by 4.5 percent, but the crude death rate remained the same. The age-adjusted death rate dropped 25.6 percent during the same period (Table 2.2). Over the period 1970-1991 the age-adjusted death rates for the nation declined by a greater amount, 28.9 percent. For this same period, the age-adjusted rates for Michigan were higher than national rates twenty-one out of twenty-two years. Between 1970 and 1982 the rates were similar, based upon the revised data in Table 2.2. During 1984 through 1987 the Michigan rates were 3.4 percent to 4.7 percent above U.S. rates. By 1991 the age-adjusted rate for Michigan was 5.1 percent above the provisional national rate.

Michigan age-adjusted death rates for black persons were considerably higher than comparable rates for white persons throughout the period 1970-1991 (Table 2.2). Michigan age-adjusted rates for black males and females were 43.3 and 54.2 percent higher than their white counterparts in 1970. By 1980 the differential had increased to 48.4 percent for males but decreased slightly to 48.3 percent for females. By 1991 the differential had increased to 71.1 percent for males and 57.4 percent for females.

Figure 2.1
Crude Death Rates
Michigan and United States[1] Residents, 1900 - 1991



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[1] United States rates for 1971-1979 have been revised using population estimates based on the 1980 Census enumeration. United States rate for 1991 is provisional.

Table 2.2
Age - Adjusted Death Rates[1] by Race and Sex
Michigan[2] and United States Residents, 1970 - 1991

Place	Year	All Races			White			Black		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Mich.	1970	717.5	925.9	537.3	685.5	889.4	510.8	1,017.1	1,274.1	787.8
	1971	707.9	922.9	524.0	672.5	881.2	495.7	1,034.2	1,315.0	785.3
	1972	711.1	928.2	526.4	677.2	888.0	499.4	1,017.8	1,302.6	767.1
	1973	694.3	906.3	513.7	658.4	862.6	486.0	1,014.1	1,309.1	757.9
	1974	660.7	865.1	488.0	628.4	824.6	464.2	948.4	1,235.6	698.6
	1975	640.2	840.3	472.4	610.1	800.5	452.0	904.1	1,198.8	649.8
	1976	636.1	838.5	469.1	607.2	801.4	448.5	889.6	1,170.5	650.8
	1977	614.4	814.8	449.4	587.3	781.6	428.8	851.7	1,116.5	628.0
	1978	606.3	797.8	449.8	578.7	765.7	426.8	842.7	1,085.5	640.3
	1979	585.4	775.6	431.4	557.9	742.5	409.7	812.6	1,063.9	604.2
	1980	588.0	773.9	438.7	557.1	735.5	414.9	829.5	1,091.4	615.2
	1981	567.4	752.1	424.5	542.2	718.5	403.0	823.9	1,075.3	619.6
	1982	556.9	739.5	416.8	531.9	705.4	395.6	807.8	1,055.2	607.2
	1983	557.1	735.0	421.2	531.1	698.7	399.3	816.6	1,065.3	615.7
	1984	564.5	736.5	431.3	533.7	694.8	407.2	813.3	1,072.4	605.0
	1985	570.0	747.3	427.6	534.9	701.2	402.8	840.4	1,121.8	612.3
	1986	566.9	734.8	431.0	529.2	685.4	404.0	857.1	1,136.4	632.4
	1987	556.4	713.6	428.4	516.1	658.8	400.9	866.4	1,159.1	632.0
	1988	545.0	698.0	419.1	504.9	647.2	388.6	858.2	1,120.2	647.9
	1989	531.5	675.4	412.0	494.3	634.9	377.3	883.6	1,163.5	659.9
	1990	527.9	681.2	405.4	488.0	628.2	377.1	797.9	1,069.2	585.2
	1991	533.6	686.6	412.0	492.4	631.9	383.3	814.8	1,081.1	603.2
U.S.	1970	714.3	931.6	532.5	679.6	893.4	501.7	1,044.0	1,318.6	814.4
	1971	697.6	913.3	519.1	663.7	876.0	489.1	1,007.8	1,276.1	784.6
	1972	698.0	918.0	516.6	664.0	879.3	487.6	1,009.5	1,296.6	772.8
	1973	687.3	905.9	508.1	654.0	868.5	479.3	993.1	1,272.1	640.9
	1974	659.5	870.9	487.0	629.0	836.1	461.0	940.4	1,215.5	717.1
	1975	630.4	837.2	462.5	602.2	804.3	439.0	890.8	1,163.0	670.6
	1976	618.5	820.9	455.0	591.3	789.3	432.5	870.5	1,138.3	654.5
	1977	602.1	801.3	441.8	575.7	770.6	419.6	849.3	1,112.1	639.6
	1978	595.0	791.4	437.4	569.5	761.1	416.4	831.8	1,093.9	622.7
	1979	577.0	768.6	423.1	551.9	738.4	402.5	840.1	1,090.4	636.1
	1980	585.8	777.2	432.6	559.4	745.3	411.1	842.5	1,112.8	631.1
	1981	568.6	753.8	420.8	544.8	724.8	401.5	807.0	1,068.8	602.7
	1982	554.7	734.2	411.9	532.3	706.8	393.6	782.1	1,035.4	585.9
	1983	552.5	729.4	412.5	529.4	701.6	393.3	787.4	1,037.5	595.3
	1984	548.1	721.6	410.5	525.2	693.6	391.7	783.3	1,035.9	590.1
	1985	548.9	723.0	410.3	524.9	693.3	391.0	793.6	1,053.4	594.8
	1986	544.8	716.2	407.6	520.1	684.9	388.1	796.8	1,061.9	594.1
	1987	539.2	706.8	404.6	513.7	674.2	384.8	796.4	1,063.6	592.4
	1988	539.9	706.1	406.1	512.8	671.3	385.3	809.7	1,083.0	601.0
	1989	528.0	689.3	397.3	499.6	652.2	376.0	805.9	1,082.8	594.3
	1990	520.2	680.2	390.6	492.8	644.3	369.9	789.2	1,061.3	581.6
	1991[3]	507.9	660.1	382.1	483.7	629.1	363.8	742.8	977.7	554.5

[1] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

[2] Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

[3] Provisional data.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Declines have generally occurred since 1970 both in Michigan and the United States in age-adjusted death rates in each race-sex group. For the black population, the decline in Michigan between 1970 and 1991 (19.9 percent) was less than it was for the United States (28.9 percent). For Michigan black persons, male age-adjusted rates declined 15.1 percent and female rates declined 23.4 percent between 1970 and 1991. The United States rates for these groups declined by 25.9 and 31.9 percent, respectively, during this period. The Michigan rates for white males and females declined 29.0 and 25.0 percent, respectively, between 1970 and 1991. The United States rates for these groups dropped 29.6 and 27.5 percent, respectively, during that time period.

During the period 1970 through 1991, the age-adjusted mortality rates for Michigan white females have been consistently greater than the rates for their national counterparts. For ten of the twenty-two years of this period, Michigan white male rates have exceeded the national white male rates. Michigan rates for black females were generally less than the rates for their national counterparts from 1970 through 1980 and greater since then. For Michigan black males the age-adjusted mortality rates have been greater than the rates for national black males for eighteen of the twenty-two years of the period.

Table 2.3
Deaths by Sex and Marital Status
Michigan Residents, 1991

Marital Status	Males		Females	
	Number	Percent	Number	Percent
Total	40,932	100.0	38,802	100.0
Never Married	6,228	15.2	3,593	9.3
Divorced[1]	4,126	10.1	3,194	8.2
Widowed	7,296	17.8	21,703	55.9
Married	23,154	56.6	10,270	26.5
Unknown	128	0.3	42	0.1

[1] Includes legally separated.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The numbers of deaths by marital status and age for men and women are displayed in Table 2.3. The majority of men were married at the time of death while the majority of women were widows. Men were more than twice as likely as women to be married at the time of death (56.6 percent compared to 26.5 percent). Conversely, women were over three times as likely to be widows at the time of death as men were to be widowers (55.9 percent compared to 17.8 percent).

Table 2.4
Deaths by Age and Ancestry
Michigan Residents, 1991

Age in Years	Total	African	American	American Indian	Arab	European	Hispanic	Other	Unknown
<15	2,172	787	283	31	24	885	64	23	75
15-24	1,384	470	140	17	13	620	31	26	67
25-34	1,913	580	185	36	15	961	42	26	68
35-44	3,083	956	252	46	21	1,603	50	54	101
45-54	4,554	967	414	86	42	2,734	59	86	166
55-64	9,556	1,581	752	149	73	6,368	96	181	356
65-74	18,087	2,424	1,246	179	123	13,044	104	244	723
75-84	22,089	2,213	1,328	167	139	16,992	98	366	786
85+	16,896	1,217	981	85	97	13,648	83	283	502
Unknown	4	2	-	-	-	2	-	-	-
Total	79,738	11,197	5,581	796	547	56,857	627	1,289	2,844

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Of the 79,738 Michigan resident deaths in 1991, 71.3 percent (56,857) were to individuals of European ancestry (Table 2.4). The next largest proportion, 14.0 percent (11,197), were to individuals of African ancestry. Individuals with a reported ancestry of American accounted for 7.0 percent (5,581) of the 1991 resident deaths. Individuals of American Indian, Hispanic and Arab each accounted for less than 1.0 percent of the 1991 resident deaths.

Table 2.5 presents data on the number of deaths by race for the period 1980-1991. The number of deaths of white persons increased by 3.5 percent over these years while deaths of black persons increased by 23.5 percent. In 1991 deaths of white persons numbered 67,182 and accounted for 84.3 percent of all deaths, while deaths of black persons constituted 15.0 percent of the state total.

It should be noted that data on race and ancestry are derived from the death certificates filed by funeral directors. Data from sources where race is self-enumerated, when matched with death data, indicate that there are larger numbers of American Indians and persons of other races dying than are reported as members of those groups on the death certificate.[1] However, the major increase in 1989 in the number of American Indian deaths listed as the decedent's race may be due to the inclusion of ancestry on the death certificate that year. By requesting information about ancestry, certifiers may be identifying American Indian decedents who might otherwise be identified as white.

Table 2.5
Number of Deaths by Race[1]
Michigan Residents, Selected Years, 1980 - 1991

Year	All Races	White	Black	American Indian	Other[2]
1980	74,991	64,897	9,704	137	93
1985	78,635	67,426	10,903	130	116
1986	80,177	68,602	11,283	139	134
1987	79,795	67,831	11,[illegible]14	137	146
1988	80,075	68,191	11,569	132	152
1989	78,566	66,031	11,939	335	185
1990	78,501	66,156	11,739	352	220
1991	79,738	67,182	11,980	324	210

[1] Deaths with race not stated included in total column only. Persons of Spanish or of Mexican-American descent are included with white.

[2] Includes Chinese, Japanese, Filipino, Hawaiian, other Asian or Pacific Islander.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

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[1] National Center for Health Statistics, Comparability of Marital Status, Race, Nationality and Country of Origin in the Death Certificate and Matching Census Record: United States, May - August, 1986 (Washington, D.C., 1969).

Michigan resident deaths in 1991 are tabulated by age, race, and sex in Table 2.6. Of the 79,738 Michigan resident deaths that occurred in 1991, 40,932 (51.3 percent) occurred to males and 38,802 occurred to females (4 records had sex not stated).

Crude, age-specific and age-adjusted death rates by race and sex are presented in Table 2.7. The crude rate for males of 907.1 was 11.8 percent above that for females, while the age-adjusted rate for males was 66.7 percent higher than the age-adjusted rate for females.

The population with the lowest crude death rate was black females (773.1) and the highest crude rate was experienced by black males (1,094.4). Age-adjusting the data revealed a different relationship. The age-adjusted rate was lowest for white females and again highest for black males.

The age-specific death rates for all males and all females displayed in Figure 2.2 indicate a similar pattern. Rates for both sexes declined from birth to a low for ages 1-14 years, then rose through the terminal age group (85 years and over). Rates for males were consistently above those for females with the greatest relative differential occurring in the age group 15-24 years, where the rate for males was 3.3 times that for females.

Table 2.6

Number of Deaths by Age, Race and Sex[1]

Michigan Residents, 1991

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under 1	1,554	904	646	857	502	354	683	393	287	13	8	5
01-04	299	157	142	210	105	105	84	50	34	5	2	3
05-09	143	77	66	110	56	54	32	20	12	1	1	-
10-14	176	132	44	131	96	35	43	34	9	2	2	-
15-19	648	483	165	401	274	127	239	204	35	8	5	3
20-24	736	581	155	441	339	102	280	230	50	15	12	3
25-29	816	584	232	532	370	162	275	206	69	9	8	1
30-34	1,097	743	354	728	498	230	346	231	115	22	14	8
35-39	1,409	911	498	898	581	317	494	320	174	16	9	7
40-44	1,674	1,068	606	1,128	714	414	529	346	183	16	8	8
45-49	1,983	1,243	740	1,471	914	557	484	313	171	26	15	11
50-54	2,571	1,557	1,014	1,980	1,202	778	548	330	218	40	23	17
55-59	3,682	2,178	1,504	2,950	1,745	1,205	700	410	290	31	22	9
60-64	5,874	3,547	2,327	4,840	2,964	1,876	979	552	427	53	31	22
65-69	8,287	4,785	3,502	6,929	4,031	2,898	1,301	723	578	53	30	23
70-74	9,800	5,414	4,386	8,452	4,704	3,748	1,296	684	612	47	23	24
75-79	11,338	5,975	5,363	9,958	5,293	4,665	1,304	642	662	71	37	34
80-84	10,751	5,035	5,716	9,633	4,525	5,108	1,065	485	580	49	22	27
85-89	8,986	3,382	5,604	8,233	3,101	5,132	707	261	446	37	14	23
90+	7,910	2,174	5,736	7,298	1,971	5,327	589	195	394	20	6	14
Not Stated	4	2	2	2	1	1	2	1	1	-	-	-
All Ages	79,738	40,932	38,802	67,182	33,986	33,195	11,980	6,630	5,347	534	292	242

[1] Deaths with race and/or sex not stated are included only in the total column.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.7
Death Rates by Age, Race and Sex[1]
Michigan Residents, 1991

Age In Years	All Races Total	All Races Male	All Races Female	White Total	White Male	White Female	Black Total	Black Male	Black Female
Crude Rate	857.8	907.1	811.4	858.1	888.9	828.8	923.2	1,094.4	773.1
Under 1	1,027.3	1,172.2	876.0	729.0	836.3	618.4	2,238.7	2,550.9	1,916.9
01-14	32.2	37.3	26.9	29.0	32.2	25.7	49.5	64.2	34.5
15-24	98.4	150.6	45.7	73.7	106.1	40.5	222.3	384.2	70.6
25-34	121.5	171.6	73.1	95.0	131.3	58.9	287.4	449.4	154.8
35-44	219.9	287.2	154.8	170.5	218.6	122.7	548.5	793.4	348.1
45-54	482.3	605.6	364.0	421.3	523.0	322.0	950.8	1,300.7	658.6
55-64	1,203.4	1,515.0	920.5	1,120.3	1,410.3	852.4	1,856.8	2,393.2	1,427.5
65-74	2,764.7	3,556.7	2,146.6	2,651.5	3,426.4	2,044.0	3,740.8	4,712.5	3,007.6
75-84	6,408.0	8,562.2	5,126.3	6,311.1	8,492.1	5,016.7	7,318.3	9,269.1	6,142.1
85+	16,069.2	18,798.6	15,001.9	16,337.3	19,319.9	15,198.5	13,481.3	14,688.0	12,902.7
Age-Adjusted Rates	533.6	686.6	412.0	492.4	631.9	383.3	814.8	1,081.1	603.2

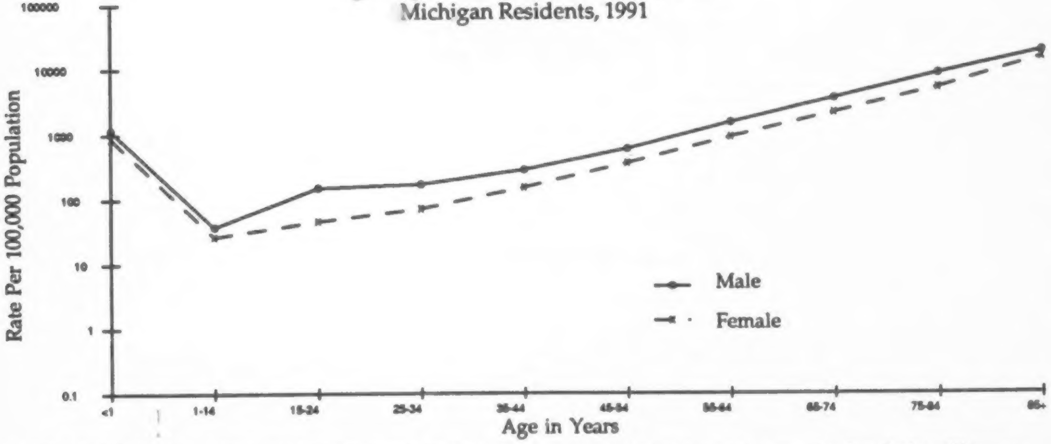
[1] Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over.

[2] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Note: Population counts used to compute rates in this table are from the modified enumeration of the 1990 Census.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 2.2
Age - Specific Death Rates [1] By Sex
Michigan Residents, 1991



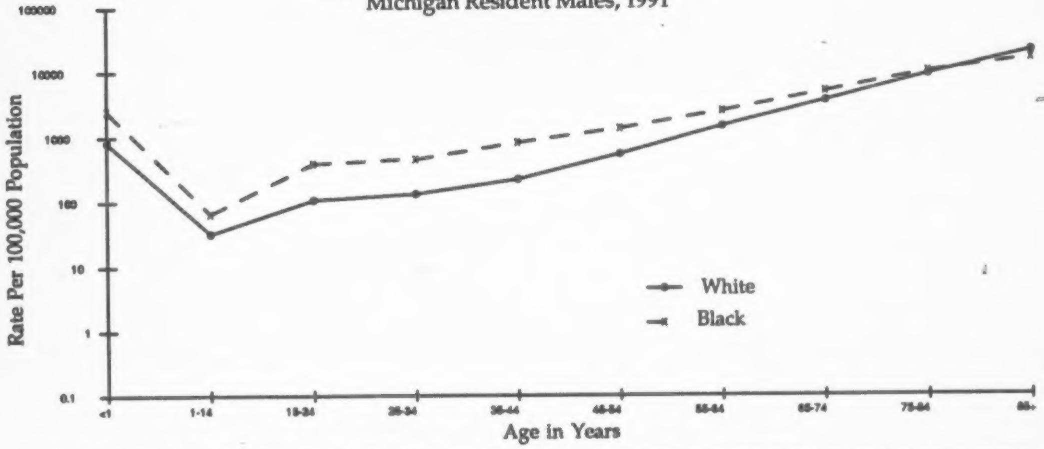
[1] Note that death rates are shown on a logarithmic scale: vertical distances represent relative differences in rate rather than absolute differences.

A comparison by race of 1991 age-specific death rates for males and females are graphically presented in Figures 2.3 and 2.4. Rates for black persons were above those for their white counterparts for both males and females at all ages below 85 years. The largest relative differentials were for persons from 15 through 54 years of age, where the rates for black males were 2.5 to 3.6 times higher than rates for white males and the rates for black females were 2.1 to 3.3 times the rates for their white female counterparts. Beyond age 84, the rates for white were higher.

Figure 2.3

Age - Specific Death Rates[1] by Race

Michigan Resident Males, 1991

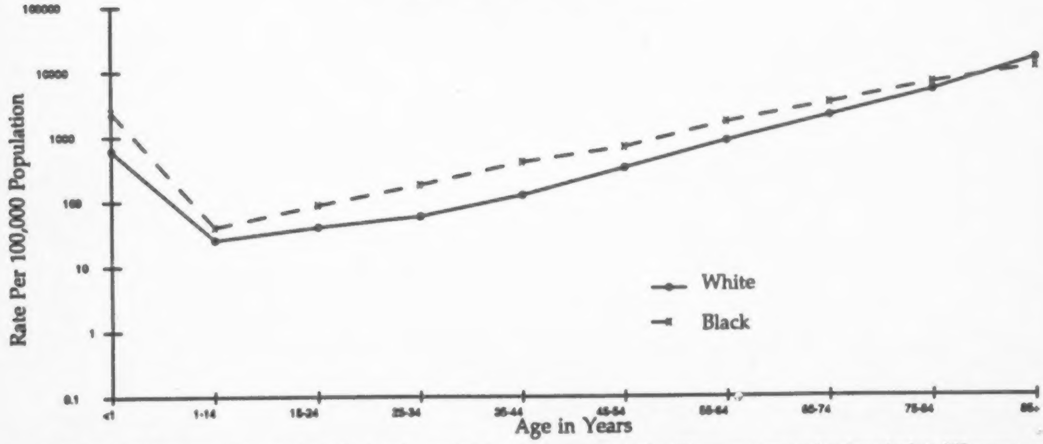


[1] Note that death rates are shown on a logarithmic scale: vertical distances represent relative differences in rate rather than absolute differences.

Figure 2.4

Age - Specific Death Rates[1] by Race

Michigan Resident Females, 1991



[1] Note that death rates are shown on a logarithmic scale: vertical distances represent relative differences in rate rather than absolute differences.

LEADING CAUSES OF DEATH

Deaths due to the 10 leading causes accounted for 83.0 percent of all deaths in 1991. Diseases of the heart were the leading cause of death with 34.5 percent of all deaths due to heart diseases. Another 24.1 percent of the deaths were due to cancer. Together these two causes of death were responsible for 58.6 percent of all Michigan resident deaths. The third leading cause of death was cerebrovascular diseases with 6.5 percent of all deaths. The percentage of total deaths resulting from each of the 10 leading causes of death in 1991 is illustrated in Figure 2.5.

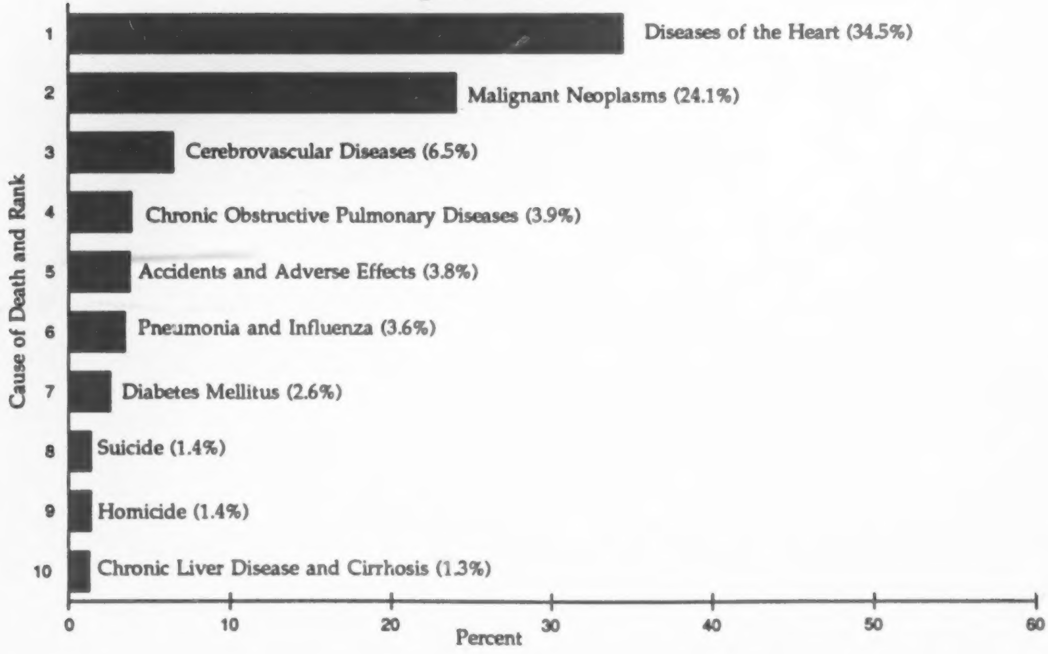
In 1991 a major change occurred in the top four leading causes of death. For the first time since 1930 accidents were not the fourth leading cause of death. There were 106 more deaths due to chronic obstructive pulmonary disease and allied conditions than accidents and adverse effects. This is due to a general decrease in the accident death rates since the rate peaked in 1936.

The numbers of deaths and the death rates for the 10 leading causes for 1991 are shown in Table 2.8. The ranking of the next 5 leading causes for 1991 were similar to the ranking in 1990, except that suicide rose to the 8th leading cause and chronic liver disease and cirrhosis dropped to the 10th leading cause.

Figure 2.5

Leading Causes of Death

Michigan Residents, 1991



Crude death rates in Michigan were higher in 1991 than in 1990 for six of the ten leading causes. The rates were higher in 1991 for malignant neoplasms, cerebrovascular diseases, chronic obstructive pulmonary diseases and allied conditions, diabetes mellitus, suicide and homicide. The rates were lower for diseases of the heart, accidents and adverse effects, pneumonia and influenza, and chronic liver disease and cirrhosis.

The order of the leading causes of death for Michigan and the United States were similar for 1991 (Table 2.8), except that accidents were still the fourth leading cause of death nationally. The overall Michigan death rate was slightly higher than the national rate. Michigan's mortality rates for diabetes mellitus, homicide and chronic liver disease and cirrhosis were 13.0 to 16.3 percent higher than the comparable national rates.

Table 2.8

Leading Causes of Death and Cause - Specific Rates

Michigan and United States Residents, 1991

Rank	Cause of Death	Number of Deaths		Rate	
		Michigan	U.S.[1]	Michigan	U.S.[1]
1	Diseases of the Heart	27,517	718,090	296.0	283.3
2	Malignant Neoplasms	19,204	514,310	206.6	202.9
3	Cerebrovascular Diseases	5,165	144,070	55.6	56.8
4	Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,117	89,130	33.5	35.2
5	Accidents and Adverse Effects	3,011	91,700	32.4	36.2
6	Pneumonia and Influenza	2,773	74,980	29.8	29.6
7	Diabetes Mellitus	2,095	49,980	22.5	19.7
8	Suicide	1,139	30,200	12.3	11.9
9	Homicide	1,138	27,440	12.2	10.8
10	Chronic Liver Disease and Cirrhosis	1,060	24,740	11.4	9.8
	Sub Total	66,219	1,764,640	712.4	696.2
	All Other Causes	13,519	400,360	145.4	157.8
	Total	79,738	2,165,000	857.8	854.0

[1] United States data are estimates based on a 10 percent sample of deaths.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.9
Leading Causes of Death by Race and Sex[1]
Michigan Residents, 1991

Cause of Death	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	27,517	13,669	13,848	23,818	11,783	12,035	3,544	1,796	1,748	147	84	63
Malignant Neoplasms	19,204	10,091	9,113	16,533	8,633	7,900	2,527	1,379	1,148	132	75	57
Cerebrovascular Diseases	5,165	2,014	3,151	4,461	1,713	2,748	668	288	380	35	13	22
C.O.P.D.	3,117	1,733	1,384	2,844	1,570	1,274	253	156	97	16	5	11
Accidents and Adverse Effects	3,011	1,902	1,109	2,520	1,568	952	450	304	146	41	30	11
Pneumonia/Influenza	2,773	1,347	1,426	2,418	1,158	1,260	333	175	158	20	12	8
Diabetes Mellitus	2,095	943	1,152	1,689	768	921	393	170	223	13	5	8
Suicide	1,139	924	215	1,008	816	192	117	99	18	13	8	5
Homicide	1,138	891	247	338	217	121	791	669	122	9	5	4
Chronic Liver Disease and Cirrhosis	1,060	707	353	824	550	274	225	152	73	10	4	6
All Other Causes	13,519	6,711	6,804	10,729	5,210	5,518	2,679	1,442	1,234	98	51	47
Total	79,738	40,932	38,802	67,182	33,986	33,195	11,980	6,630	5,347	534	292	242

[1] Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.10
Leading Causes of Death and Crude Death Rates by Race and Sex[1]
Michigan Residents, 1991

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	296.0	302.9	289.6	304.2	308.1	300.4	273.0	296.3	252.6
Malignant Neoplasms	206.6	223.6	190.5	211.2	225.7	197.3	194.8	227.7	165.9
Cerebrovascular Diseases	55.6	44.6	65.9	57.0	44.8	68.6	51.4	47.5	54.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33.5	38.4	28.9	36.4	41.1	31.8	19.5	25.7	14.0
Accidents and Adverse Effects	32.4	42.1	23.2	32.2	41.0	23.8	34.7	50.1	21.1
Pneumonia/Influenza	29.8	29.8	29.8	30.9	30.3	31.4	25.7	29.0	22.8
Diabetes Mellitus	22.5	20.9	24.1	21.6	20.1	23.0	30.3	28.0	32.2
Suicide	12.3	20.5	4.5	12.9	21.4	4.8	9.0	16.3	2.6
Homicide	12.2	19.7	5.2	4.3	5.7	3.0	60.9	110.3	17.6
Chronic Liver Disease and Cirrhosis	11.4	15.7	7.4	10.5	14.4	6.8	17.3	25.1	10.6
All Other Causes	145.4	148.8	142.3	137.1	136.4	137.8	206.5	238.3	178.6
Total	857.8	907.1	811.4	858.1	888.9	828.8	923.2	1,094.4	773.1

[1] Death with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The numbers of deaths and crude death rates are presented by race and sex for the 10 leading causes of death in Tables 2.9 and 2.10. The order of the leading causes for each group was similar with some notable exceptions. Suicide, the overall eighth leading cause of death, was the seventh leading cause for white males. Accidents and adverse effects, the fifth leading cause of death, was the sixth leading cause for white females. Homicide, ninth leading cause of death, was the third and seventh leading cause of death for black males and females, respectively. Finally, diabetes, the seventh leading cause, was the fourth leading cause for black females.

The age-adjusted rates for race and sex groups are presented for the ten leading causes of death in Table 2.11. These rates are adjusted for the differences in age distributions among the groups. The age-adjusted death rates for white females were lower than the rates for the other three groups for eight of the ten leading causes of death. Rates for black females were lower for chronic obstructive pulmonary diseases and allied conditions and suicides.

Black and white female rates for accidents and adverse effects were similar. The greatest differentials between black and white female rates occur for diabetes where black female rates were 2.3 times higher than white female rates, chronic liver disease and cirrhosis (2.2 times higher) and homicide (6.0 times). For the other four causes black female rates were 1.2 to 1.6 times higher than white female rates.

Black male rates were higher than white male rates, for eight of the ten leading causes of death. White male rates were higher than black male rates for chronic obstructive pulmonary diseases and allied conditions and suicide. The greatest differentials between black and white male rates also occur for diabetes (2.0 times), chronic liver disease and cirrhosis (2.4 times) and homicide (19.7 times). For the other five conditions the black male rates were 1.3 to 1.8 higher than white male rates.

Table 2.11

Leading Causes of Death and Age-Adjusted Death Rates by Race and Sex[1]

Michigan Residents, 1991

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	162.4	217.1	119.2	153.8	207.8	111.0	230.8	294.6	181.9
Malignant Neoplasms	141.4	171.4	120.7	136.3	164.1	117.5	181.9	233.3	145.2
Cerebrovascular Diseases	28.1	30.0	26.5	26.1	27.7	24.9	43.1	48.5	38.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19.8	26.5	15.5	20.0	26.7	15.8	17.3	24.9	11.9
Accidents and Adverse Effects	27.9	39.2	17.4	27.1	37.5	17.3	33.2	50.1	18.7
Pneumonia/Influenza	14.2	19.2	10.9	13.3	18.0	10.3	20.1	26.9	15.0
Diabetes Mellitus	14.0	15.8	12.6	12.4	14.2	10.9	27.0	28.9	25.2
Suicide	11.4	19.2	4.3	11.8	19.6	4.5	9.2	16.9	2.7
Homicide	12.7	20.4	5.2	4.3	5.7	2.9	61.6	112.3	17.4
Chronic Liver Disease and Cirrhosis	9.6	14.0	5.8	8.3	12.1	4.9	19.1	29.0	11.0
All Other Causes	92.1	113.9	74.0	79.1	98.3	63.4	171.5	215.7	135.5
Total	533.6	686.6	412.0	492.4	631.9	383.3	814.8	1,081.1	603.2

[1] Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Age-specific mortality rates for the leading causes of death among residents of different ages, sexes or races are more varied than age-adjusted rates for the race-sex groups. Tables 2.12 through 2.16 contain the five most frequent causes of death by age, sex and race. Races other than white and black are not presented in this table because of the small number of deaths in any age-sex-cause of death category.

Overall and for the four race-sex groups, deaths due to diseases of the heart and malignant neoplasms combined account for 47.9 percent to 60.1 percent of the deaths. Cerebrovascular diseases were the third leading cause of death for females and white males and were fifth for black males. Accidents were the fifth and fourth leading cause of death for white and black males, respectively. Homicide was the third leading cause of death for black males, but was not in the leading five causes for the other groups.

Leading causes of death for infants are generally different than the causes observed for other age groups. The leading cause for all four groups of infants is certain conditions originating in the perinatal period. Congenital anomalies and sudden infant death syndrome were the second or third leading cause for infants in each group.

Accidents were the leading cause of death overall for age groups from ages 1 through 34 years. Similar results occurred for white males and females. Accidents were among the top leading causes of death of black males under 35 years of age and the leading cause for ages 1 to 14 years.

Homicide was the second leading cause of deaths overall for ages 15 through 34 years, but was the leading cause of death for black males and females aged 15 through 34 years and the second leading cause of death for black males aged 5 through 14 and 35 through 44 years. In fact, over half of the homicides among Michigan residents occurred among black males 15 to 49 years of age.

Suicide was the second leading cause of death for ages 15-34, third for ages 5-14 and fourth for age groups 35-49 among white males. Suicide was the third leading cause among black males ages 15 to 24 years and the fourth leading cause for ages 25-34 years.

Among persons 35 years and over, chronic conditions are responsible for the majority of deaths. Malignant neoplasms were the leading cause of death for both black and white females aged 35 through 64 years and second leading cause for black and white females aged 25-34 and 65 and over. They were the second or third leading cause of death for both white and black males 35 years of age or over.

Diseases of the heart were the leading cause of death for both black and white males aged 35 years or over and females 65 years of age or over. They were the second leading cause of death for both black and white females aged 35-64 years of age.

Table 2.12
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Residents, 1991

Age	Rank and Cause of Death	Number[1]	Rate[2,3]
All Ages	1. Diseases of the Heart	27,517	296.0
	2. Malignant Neoplasms	19,204	206.6
	3. Cerebrovascular Diseases	5,165	55.6
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,117	33.5
	5. Accidents	3,011	32.4
	All Causes	79,738	857.8
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	807	533.5
	2. Congenital Anomalies	258	170.6
	3. Sudden Infant Death Syndrome	240	158.7
	4. Accidents	38	25.1
	5. Pneumonia and Influenza	34	22.5
	All Causes	1,554	1,027.3
1-4 Years	1. Accidents	117	20.8
	2. Congenital Anomalies	43	7.6
	3. Malignant Neoplasms	29	5.2
	4. Homicide	21	3.7
	5-6. Certain Conditions Originating in the Perinatal Period-Diseases of the Heart	11	2.0
	All Causes	299	53.2
5-14 Years	1. Accidents	140	10.3
	2. Malignant Neoplasms	57	4.2
	3. Homicide	23	1.7
	4. Congenital Anomalies	17	1.3
	5. Suicide	12	0.9
	All Causes	319	23.5
15-24 Years	1. Accidents	501	35.6
	2. Homicide	397	28.2
	3. Suicide	173	12.3
	4. Malignant Neoplasms	71	5.0
	5. Diseases of the Heart	45	3.2
	All Causes	1,384	98.4
25-34 Years	1. Accidents	426	27.1
	2. Homicide	299	19.0
	3. Suicide	218	13.8
	4. Malignant Neoplasms	197	12.5
	5. HTLV-III/LAV Infection (AIDS)	155	9.8
	All Causes	1,913	121.5
35-49 Years	1. Malignant Neoplasms	1,192	62.0
	2. Diseases of the Heart	1,001	52.1
	3. Accidents	488	25.4
	4. Suicide	322	16.8
	5. Chronic Liver Disease and Cirrhosis	271	14.1
	All Causes	5,066	263.5
50-64 Years	1. Malignant Neoplasms	4,621	379.3
	2. Diseases of the Heart	3,729	306.1
	3. Cerebrovascular Diseases	460	37.8
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	448	36.8
	5. Diabetes Mellitus	378	31.0
	All Causes	12,127	995.5
65 and Over	1. Diseases of the Heart	22,579	2,045.0
	2. Malignant Neoplasms	13,033	1,180.4
	3. Cerebrovascular Diseases	4,467	404.6
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	2,577	233.4
	5. Pneumonia and Influenza	2,421	219.3
	All Causes	57,072	5,169.1

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 19 males and 15 females. In, addition, the sex was not stated on 21 records for white and 9 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.13
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident White Males, 1991

Age	Rank and Cause of Death	Number[1]	Rate[2,3]
All Ages	1. Diseases of the Heart	11,783	308.0
	2. Malignant Neoplasms	8,633	225.7
	3. Cerebrovascular Diseases	1,713	44.8
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,570	41.0
	5. Accidents	1,568	41.0
	All Causes	33,986	888.4
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	229	380.7
	2. Congenital Anomalies	96	159.6
	3. Sudden Infant Death Syndrome	86	143.0
	4. Accidents	14	23.3
	5. Pneumonia and Influenza	10	16.6
	All Causes	502	834.6
1-4 Years	1. Accidents	38	16.4
	2. Congenital Anomalies	19	8.2
	3. Malignant Neoplasms	14	6.0
	4. Diseases of the Heart	5	2.2
	5. Homicide	4	1.7
	All Causes	105	45.4
5-14 Years	1. Accidents	76	13.4
	2. Malignant Neoplasms	20	3.5
	3. Suicide	10	1.8
	4. Congenital Anomalies	8	1.4
	5. Homicide	4	0.7
	All Causes	152	26.8
15-24 Years	1. Accidents	300	51.9
	2. Suicide	124	21.5
	3. Homicide	52	9.0
	4. Malignant Neoplasms	40	6.9
	5. Diseases of the Heart	20	3.5
	All Causes	613	106.1
25-34 Years	1. Accidents	272	41.2
	2. Suicide	159	24.1
	3. HTLV-III/LAV Infection (AIDS)	88	13.3
	4. Malignant Neoplasms	72	10.9
	5. Homicide	62	9.4
	All Causes	868	131.3
35-49 Years	1. Diseases of the Heart	557	68.3
	2. Malignant Neoplasms	406	49.7
	3. Accidents	276	33.8
	4. Suicide	212	26.0
	5. Chronic Liver Disease and Cirrhosis	134	16.4
	All Causes	2,209	270.7
50-64 Years	1. Diseases of the Heart	2,081	403.3
	2. Malignant Neoplasms	2,057	398.7
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	218	42.2
	4. Cerebrovascular Diseases	176	34.1
	5. Chronic Liver Disease and Cirrhosis	175	33.9
	All Causes	5,911	1,145.6
65 and Over	1. Diseases of the Heart	9,063	2,283.0
	2. Malignant Neoplasms	6,022	1,516.9
	3. Cerebrovascular Diseases	1,480	372.8
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,329	334.8
	5. Pneumonia and Influenza	1,017	256.2
	All Causes	23,625	5,951.1

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 19 males and 15 females. In, addition, the sex was not stated on 21 records for white and 9 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.14
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident Black Males, 1991

Age	Rank and Cause of Death	Number[1]	Rate[2,3]
All Ages	1. Diseases of the Heart	1,796	296.1
	2. Malignant Neoplasms	1,379	227.4
	3. Homicide	669	110.3
	4. Accidents	304	50.1
	5. Cerebrovascular Diseases	288	47.5
	All Causes	6,630	1,093.2
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	235	1,517.6
	2. Sudden Infant Death Syndrome	62	400.4
	3. Congenital Anomalies	27	174.4
	4. Pneumonia and Influenza	11	71.0
	5. Accidents	10	64.6
	All Causes	393	2,537.9
1-4 Years	1. Accidents	24	48.6
	2. Congenital Anomalies	5	•
	3-4. Malignant Neoplasms-Homicide	3	•
	5-7. Pneumonia and Influenza-HTLV-III/LAV Infection (AIDS)-Diseases of the Heart	2	•
	All Causes	50	101.2
5-14 Years	1. Accidents	21	18.6
	2. Homicide	16	14.2
	3. Malignant Neoplasms	6	5.3
	4. Diseases of the Heart	2	•
	5-7. Suicide-Congenital Anomalies-Septicaemia	1	•
	All Causes	54	48.0
15-24 Years	1. Homicide	288	255.0
	2. Accidents	60	53.1
	3. Suicide	22	19.5
	4. Diseases of the Heart	11	9.7
	5. Malignant Neoplasms	8	7.1
	All Causes	434	384.2
25-34 Years	1. Homicide	175	180.0
	2. HTLV-III/LAV Infection (AIDS)	48	49.4
	3. Accidents	37	38.1
	4. Suicide	25	25.7
	5. Diseases of the Heart	24	24.7
	All Causes	437	449.4
35-49 Years	1. Diseases of the Heart	181	161.4
	2. Homicide	145	129.3
	3. Malignant Neoplasms	101	90.1
	4. HTLV-III/LAV Infection (AIDS)	99	88.3
	5. Chronic Liver Disease and Cirrhosis	66	58.8
	All Causes	979	872.9
50-64 Years	1. Diseases of the Heart	437	711.5
	2. Malignant Neoplasms	401	652.8
	3. Cerebrovascular Diseases	68	110.7
	4. Chronic Liver Disease and Cirrhosis	53	86.3
	5. Diabetes Mellitus	44	71.6
	All Causes	1,292	2,103.4
65 and Over	1. Diseases of the Heart	1,132	2,505.9
	2. Malignant Neoplasms	847	1,875.0
	3. Cerebrovascular Diseases	166	367.5
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	105	232.4
	5. Pneumonia and Influenza	103	228.0
	All Causes	2,990	6,619.0

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 19 males and 15 females. In, addition, the sex was not stated on 21 records for white and 9 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.15
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident White Females, 1991

Age	Rank and Cause of Death	Number[1]	Rate[2,3]
All Ages	1. Diseases of the Heart	12,035	300.3
	2. Malignant Neoplasms	7,900	197.1
	3. Cerebrovascular Diseases	2,748	68.6
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,274	31.8
	5. Pneumonia and Influenza	1,260	31.4
	All Causes	33,195	828.3
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	165	287.4
	2. Congenital Anomalies	90	156.8
	3. Sudden Infant Death Syndrome	47	81.9
	4-5. Accidents-Pneumonia and Influenza	7	12.2
	All Causes	354	616.7
1-4 Years	1. Accidents	41	18.6
	2. Congenital Anomalies	14	6.4
	3. Malignant Neoplasms	10	4.5
	4-5. Certain Conditions Originating in the Perinatal Period-Homicide	7	3.2
	All Causes	105	47.7
5-14 Years	1. Accidents	33	6.2
	2. Malignant Neoplasms	25	4.7
	3. Congenital Anomalies	6	1.1
	4-11. Homicide-Suicide-Diseases of the Heart-Cerebrovascular Diseases-Chronic Obstructive Pulmonary Diseases and Allied Conditions-Meningitis-Certain Conditions Originating in the Perinatal Period-Nephritis, Nephrotic Syndrome and Nephrosis	1	*
	All Causes	89	16.6
15-24 Years	1. Accidents	122	21.6
	2. Suicide	21	3.7
	3. Malignant Neoplasms	19	3.4
	4. Homicide	18	3.2
	5. Diseases of the Heart	10	1.8
	All Causes	229	40.5
25-34 Years	1. Accidents	87	13.0
	2. Malignant Neoplasms	81	12.1
	3. Diseases of the Heart	34	5.1
	4. Homicide	29	4.3
	5. Suicide	28	4.2
	All Causes	392	58.8
35-49 Years	1. Malignant Neoplasms	546	66.3
	2. Diseases of the Heart	159	19.3
	3. Accidents	108	13.1
	4. Suicide	69	8.4
	5. Cerebrovascular Diseases	64	7.8
	All Causes	1,288	156.4
50-64 Years	1. Malignant Neoplasms	1,784	324.4
	2. Diseases of the Heart	881	160.2
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	179	32.6
	4. Cerebrovascular Diseases	166	30.2
	5. Diabetes Mellitus	130	23.6
	All Causes	3,859	701.8
65 and Over	1. Diseases of the Heart	10,940	1,857.1
	2. Malignant Neoplasms	5,433	922.2
	3. Cerebrovascular Diseases	2,503	424.9
	4. Pneumonia and Influenza	1,167	198.1
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,068	181.3
	All Causes	26,878	4,562.5

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 19 males and 15 females. In, addition, the sex was not stated on 21 records for white and 9 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.16
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident Black Females, 1991

Age	Rank and Cause of Death	Number[1]	Rate[2,3]
All Ages	1. Diseases of the Heart	1,748	252.6
	2. Malignant Neoplasms	1,148	165.9
	3. Cerebrovascular Diseases	380	54.9
	4. Diabetes Mellitus	223	32.2
	5. Certain Conditions Originating in the Perinatal Period	175	25.3
	All Causes	5,347	772.8
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	173	1,151.5
	2. Sudden Infant Death Syndrome	41	272.9
	3. Congenital Anomalies	37	246.3
	4. Accidents	7	46.6
	5. Pneumonia and Influenza	5	*
	All Causes	287	1,910.3
1-4 Years	1. Accidents	12	24.8
	2. Homicide	7	14.4
	3. Congenital Anomalies	4	*
	4-9. Certain Conditions Originating in the Perinatal Period-Appendicitis-Diseases of the Heart-HTLV-III/LAV Infection(AIDS) Malignant Neoplasms-Pneumonia and Influenza	1	*
	All Causes	34	70.2
5-14 Years	1. Accidents	8	7.2
	2. Malignant Neoplasms	5	*
	3-5. Congenital Anomalies-Anemia-Homicide	2	*
	All Causes	21	19.0
15-24 Years	1. Homicide	36	29.9
	2. Accidents	10	8.3
	3. Complications of Pregnancy, Childbirth and the Puerperium	5	*
	4-5. Chronic Obstructive Pulmonary Diseases and Allied Conditions-Malignant Neoplasms	3	*
	All Causes	85	70.6
25-34 Years	1. Homicide	30	25.2
	2. Malignant Neoplasms	25	21.0
	3. Accidents	20	16.8
	4. Diseases of the Heart	18	15.1
	5. HTLV-III/LAV Infection (AIDS)	13	10.9
	All Causes	184	154.8
35-49 Years	1. Malignant Neoplasms	117	86.3
	2. Diseases of the Heart	96	70.8
	3. Cerebrovascular Diseases	39	28.8
	4. Homicide	35	25.8
	5. Chronic Liver Disease and Cirrhosis	33	24.3
	All Causes	528	389.4
50-64 Years	1. Malignant Neoplasms	335	438.4
	2. Diseases of the Heart	290	379.5
	3. Diabetes Mellitus	48	62.8
	4. Cerebrovascular Diseases	47	61.5
	5. Chronic Liver Disease and Cirrhosis	19	24.9
	All Causes	935	1,223.5
65 and Over	1. Diseases of the Heart	1,340	2,021.0
	2. Malignant Neoplasms	662	998.4
	3. Cerebrovascular Diseases	288	434.4
	4. Diabetes Mellitus	158	238.3
	5. Pneumonia and Influenza	116	174.9
	All Causes	3,272	4,934.8

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 19 males and 15 females. In, addition, the sex was not stated on 21 records for white and 9 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

COMMUNICABLE DISEASE DEATHS

Although comprising a smaller proportion of deaths than they have in the past, communicable disease deaths continue to be a public health concern. In 1991, deaths from all infectious and parasitic diseases numbered 1,308. As can be observed from Table 2.17, 42.4 percent of these deaths were caused by septicemia (555 deaths).

There were 465 deaths (35.6 percent) attributable to AIDS. This is a 24.7 percent increase in the number of deaths due to AIDS since 1990 when there were 373 deaths. There were 329 and 216 deaths due to AIDS reported in 1989 and 1988, respectively.

Deaths due to such diseases as diphtheria, scarlet fever, streptococcal sore throat, small pox, typhoid fever, measles, poliomyelitis and others have been virtually eliminated not only in Michigan, but across the nation. Table 4.7 illustrates trends in deaths from the major communicable diseases.

Table 2.17

Deaths from Selected Infectious and Parasitic Diseases

Michigan Residents, 1991

ICD List[1] Number	Cause of Death	Frequency
038	Septicemia	555
042-044	HTLV-III/LAV Infection(AIDS)	465
110-118	Mycoses	59
010-018	Tuberculosis	41
070	Viral Hepatitis	33
135	Sarcoidosis	21
136.3	Pneumocystosis	13
046	Slow Virus Infection of Central Nervous System	11
036	Meningococcal Infection	5
040.0	Gas Gangrene	4
053	Herpes Zoster	4
054	Herpes Simplex	3
052	Chickenpox	3
137	Late Effects of Tuberculosis	1
Residual 000-139	All Other Infectious and Parasitic Diseases	90
	Total	1,308

[1] Detailed list of the 9th revision of the International Classification of Diseases, WHO.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

LIFE EXPECTANCY

In 1991 the life expectancy at birth was 71.7 years for males and 78.0 years for females based on 1991 mortality and population data. Females demonstrated a significantly greater longevity than males, due to the higher mortality rates of males at all ages.

Life expectancies by sex in selected years for Michigan and United States residents are presented in Table 2.18. It can be seen that longevity has increased greatly in Michigan since 1901, by 18.3 years for males and by 22.9 years for females. Females born in Michigan in 1901 could expect to live 1.7 years longer than their male counterparts. By 1950 the differential in life expectancy between the sexes was 5.5 years. This disparity increased to 7.4 years by 1970. By 1980 male life expectancy had risen faster than female life expectancy and the disparity decreased to 6.9 years and by 1991 the disparity decreased further to 6.3 years. Between 1980 and 1991 life expectancy increased by 1.7 years for males and 1.1 years for females.

The life expectancy of Michigan residents was well above that for the nation in 1901, but this differential had virtually disappeared by 1950. In 1980 the life expectancy of males in Michigan was equal to that for males nationwide, at 70.0 years, while longevity for females residing in this state was 0.5 years below the average for the country.

Between 1981 and 1991 both males and females in Michigan had lower life expectancy than both sex groups in the nation. By 1991 the life expectancies of males and females in Michigan were 0.5 and 1.1 years, respectively, below the national provisional life expectancy. Note that females have consistently demonstrated greater longevity than males both in Michigan and in the United States.

Table 2.18

Life Expectancy at Birth by Sex

Michigan and United States Residents

Selected Years, 1901 - 1991[3]

United States		Year	Michigan	
Male	Female		Male	Female
47.6	50.6	1901	53.4	55.1
48.4	51.8	1910	53.9	56.2
53.6	54.6	1920	55.1[1]	56.0[1]
58.1	61.6	1930	59.8[1]	62.8[1]
60.8	65.2	1940	63.4[1]	64.4[1]
65.6	71.1	1950	65.7	71.2
66.6	73.1	1960	67.1	73.3
67.1	74.7	1970	67.2	74.6
68.8	76.6	1975	68.5	75.7
70.0	77.4	1980	70.0	76.9
70.4	77.8	1981	70.3	77.1
70.9	78.1	1982	70.6	77.4
71.0	78.1	1983	70.7	77.4
71.2	78.2	1984	70.8	77.2
71.2	78.2	1985	70.6	77.4
71.3	78.3	1986	70.7	77.4
71.5	78.4	1987	71.1	77.4
71.5	78.3	1988	71.3	77.6
72.2	79.1	1989	71.6	77.7
71.8	78.8	1990	71.7	78.1
72.2[2]	79.1[2]	1991	71.7	78.0

[1] Michigan data for years 1920, 1930 and 1940 are for white persons only.

[2] Provisional data.

[3] Data for 1981-1985 have been revised.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

White persons had a higher life expectancy than persons of all other races of the same sex since 1950 (Table 2.19). The life expectancy of white males was 8.6 years greater than males of all other races in 1991 compared to a differential of 5.8 years in 1950. In 1970 the differential was 7.2 years, due in part to an actual reduction in life expectancy for males of all other races between 1960 and 1970. Life expectancy for males of all other races increased from 61.0 in 1970 to 65.3 years in 1982 and 1983 and decreased to 63.2 in 1989. By 1991 their life expectancy had risen to 64.5 again. The life expectancy for white males rose from 68.2 in 1970 to 73.1 years in 1991.

The differential by race for female life expectancies generally declined over the 1950-1991 period. In 1950, Michigan resident white females had an average longevity 8.5 years greater than females of all other races. This disparity declined to 4.9 years by 1980 and increased to 5.5 years by 1991. Life expectancy generally increased for white females between 1950 and 1991, but it peaked in 1982 for females of all other races and generally declined through 1989. By 1991 their life expectancy increased to 73.3 again.

The expected number of years of life remaining are presented graphically by age, race, and sex in Figure 2.6. The number of years of life remaining for females was greater than that for males throughout life. The average number of years remaining for white males and females surpassed or equaled that of their black counterparts for all age groups. However, black persons displayed similar life expectancies with their white counterparts in age intervals over 69 years.

Table 2.19

Life Expectancy at Birth by Sex and Race

Michigan Residents, Selected Years, 1950 - 1991[1]

Population Subgroup	Year													
	1950	1960	1970	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
White														
Male	66.2	67.5	68.2	71.0	71.5	71.6	71.8	71.7	71.9	72.4	72.6	73.1	73.1	73.1
Female	71.9	74.0	75.3	77.6	78.0	78.1	78.0	78.1	78.2	78.2	78.5	78.8	79.0	78.8
All Other														
Male	60.4	63.6	61.0	64.3	65.3	65.3	64.7	64 .0	63.8	64 .0	64.2	63.2	63.8	64.5
Female	63.4	67.7	69.4	72.7	73.8	73.7	73.0	73.2	72.7	73 .0	72.5	71.9	73.2	73.3

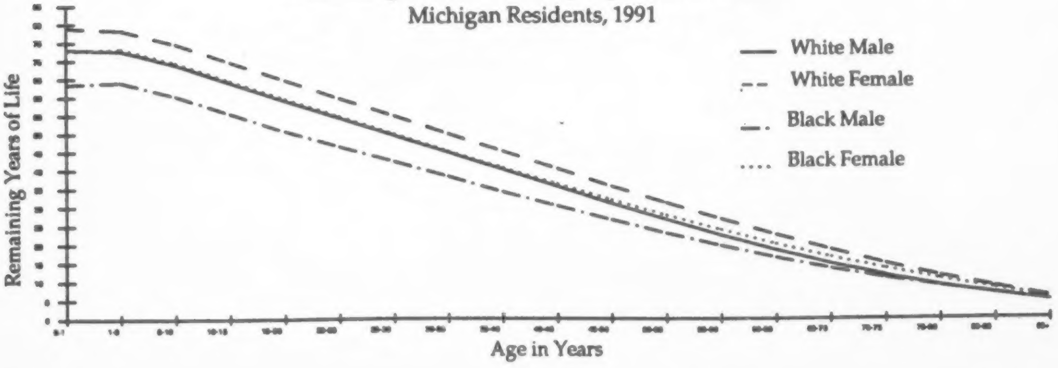
[1] Data for 1981-1985 have been revised.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 2.6

Remaining Years of Life by Age, Sex and Race

Michigan Residents, 1991



YEARS OF POTENTIAL LIFE LOST

Another measure of the impact that causes of death have on a population, the years of potential life lost below age 65, is used by the National Centers for Disease Control. The years of potential life lost is calculated as the number of years between the age at death and 65 years of age for persons dying before their 65th year.

Table 2.20 includes the years of potential life lost to the Michigan population in 1991 for the ten leading causes of death and selected other causes, as well as the rankings of these causes based on years of potential life lost for the United States. Malignant neoplasms, with 71,965 total years lost in Michigan, was the leading cause of years of potential life lost in Michigan and second in the United States. There was an 8.2 percent decrease in the years of potential life lost below age 65 due to accidents between 1989 and 1990 and another 2.8 percent decrease between 1990 and 1991 in Michigan, which resulted in accidents remaining the second leading cause of years of potential life lost in Michigan for the second year, while remaining first in the United States. Homicide and suicide, combined, ranked third in Michigan and the United States. Three causes associated with infancy, prematurity, congenital anomalies and sudden infant death syndrome (SIDS), ranked as the fifth, sixth and seventh leading causes of potential life lost, respectively, in Michigan.

Rankings of the leading causes of potential life lost were reasonably similar for Michigan and the United States with the exception of AIDS. For Michigan, AIDS was the 9th leading cause of years of potential life lost and 6th in the United States.

For causes of death listed in Table 2.20, Michigan males lost more potential years of

Table 2.20

Years of Potential Life Lost Below Age 65

Due to the Ten Leading Causes of Death and Selected Other Causes

Michigan Residents, 1991

Rank	Cause of Death	Years of Potential Life Lost			U.S.[2] Rank
		Total[1]	Male	Female	
1	Malignant Neoplasms	71,965	35,479	36,486	2
2	Accidents and Adverse Effects	68,000	47,705	20,295	1
3	Homicide/Suicide	63,407	51,552	11,855	3
4	Diseases of the Heart	53,864	37,967	15,897	4
5	Prematurity[3]	28,187	15,867	12,191	7
6	Congenital Anomalies	22,071	11,209	10,734	5
7	Sudden Infant Death Syndrome	15,480	9,804	5,676	8
8	Chronic Liver Disease and Cirrhosis	12,281	10,864	1,417	10
9	HTLV-III/LAV Infection (AIDS)	9,960	7,035	2,925	6
10	Cerebrovascular Diseases	9,025	4,389	4,636	9
11	Diabetes Mellitus	7,585	4,638	2,947	12
12	Pneumonia and Influenza	5,827	3,512	2,315	11
13	Chronic Obstructive Pulmonary Diseases and Allied Conditions	5,547	2,915	2,632	13
	All Other	84,284	50,401	33,883	

[1] Total includes data for individuals with sex unspecified.

[2] U.S. rankings based on a 10 percent sample of provisional data.

[3] Codes 765 and 769, detailed list of the 9th revision of the International Classification of Diseases, WHO.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

life than Michigan females for all causes of death, except cerebrovascular diseases. The ranking of the leading causes of years of potential life lost was different from the ranking of numbers of deaths presented in Table 2.8. Diseases of the heart was the leading cause of death but was the fourth leading cause of years of potential life lost below age 65. Accidents and adverse effects, which was the fifth leading cause of death, was the second leading cause of years of potential life lost. Chronic obstructive pulmonary disease, diabetes mellitus and pneumonia and influenza which were among the ten leading causes of death, were not among the ten leading causes of years of potential life lost.

PLACE OF OCCURRENCE

There were 2,014 Michigan resident deaths in 1991 that occurred outside the state. This represents 2.5 percent of all resident deaths. Of the 2,014 deaths among Michigan residents the state with the highest number of Michigan resident deaths was Ohio with 20.4 percent (411 deaths). The second highest number, 341 (16.9 percent), occurred in the state of Florida, more than in any other non-border state. The border areas of Illinois, Indiana, Ohio, Wisconsin and Canada accounted for 57.1 percent of all resident deaths outside Michigan. In addition to the above-mentioned areas, over 50 Michigan resident deaths occurred in Arizona, Texas and Minnesota. Michigan resident deaths occurred in 45 of the 50 states in 1991, the District of Columbia and Canada (Table 2.21).

Of the 1,074 non-residents that died in Michigan in 1991, 45.1 percent were from the border areas while 23.9 percent were Floridians. Overall, non-residents who died in Michigan were residents of 39 states, the District of Columbia, Virgin Island, Mexico, Canada and at least four foreign countries.

Table 2.21

Michigan Deaths

Occurring Outside Michigan to Michigan Residents by Place of Occurrence and Occurring in Michigan to Non-Michigan Residents by Place of Residence, 1991

Geographic Area	Residents Occurring Outside Michigan		Non-Residents Occurring In Michigan	
	Number	Percent	Number	Percent
Total	2,014	100.0	1,074	100.0
Ohio	411	20.4	158	14.7
Florida	341	16.9	257	23.9
Wisconsin	339	16.8	124	11.5
Indiana	302	15.0	84	7.8
Illinois	93	4.6	75	7.0
Arizona	71	3.5	23	2.1
Texas	67	3.3	35	3.3
Minnesota	50	2.5	9	0.8
California	37	1.8	34	3.2
Tennessee	31	1.5	16	1.5
Pennsylvania	28	1.4	22	2.0
New York	16	0.8	24	2.2
Georgia	11	0.5	8	0.7
Canada	4	0.2	43	4.0
Other Areas	213	10.6	162	15.1

Source: Office of the State Registrar and Center for Health Statistics, MDPH

INFANT DEATHS

Of the 79,738 deaths occurring to Michigan residents in 1991, 1,554 occurred to individuals less than one year of age. The rate of death for infants under the age of one year has dropped considerably since 1900. In that year there were 157.1 infant deaths for every 1,000 live births. This means that about 16 of every 100 infants did not survive their first year (Figure 2.7). This rate fell below 100 by 1914 (96.8), to less than 70 by 1927 (67.7), and to less than 50 by 1935 (47.7). During the 1940's the Michigan infant death rate declined from 40.6 in 1940 to 28.9 in 1949.

Relative declines in the infant death rate slowed considerably in the 1950's and 1960's. It was not until 1971 that the rate dropped below 20 to 19.5. The rate of decline between 1970 and 1980 compares favorably with the rate of decline observed before 1950. Between 1980 and 1991 the rate fluctuated, slowly declining from 12.8 to 10.4 in 1991 (Table 2.22).

During the period 1915-1928, the rate for Michigan was above that for the United States 9 of 14 years. From 1929 through 1969, Michigan's infant death rate was consistently below the national statistic. From 1970 through 1975 the infant mortality rate in Michigan was slightly higher than the rate for the nation. From 1976 through 1980 the rates for the state and nation were similar. Since 1980 the rate for Michigan has been 5 to 17 percent above the national rate. The provisional rate for the United States in 1991 was 8.9 infant deaths per 1,000 live births. The Michigan rate of 10.4 was 16.9 percent higher than the national rate in 1991.

Table 2.22

Infant Deaths and Infant Death Rates

Michigan and United States Residents

Selected Years, 1950 - 1991[1]

United States		Year	Michigan	
Number	Rate		Number	Rate
103,825	28.6	1950	4,230	26.4
110,873	26.0	1960	4,704	24.1
74,667	20.0	1970	3,492	20.3
45,526	12.6	1980	1,851	12.8
40,030	10.6	1985	1,575	11.4
38,891	10.4	1986	1,565	11.4
38,408	10.1	1987	1,538	10.9
38,910	10.0	1988	1,542	11.0
39,655	9.8	1989	1,645	11.1
38,351	9.2	1990	1,638	10.7
36,500	8.9	1991	1,554	10.4

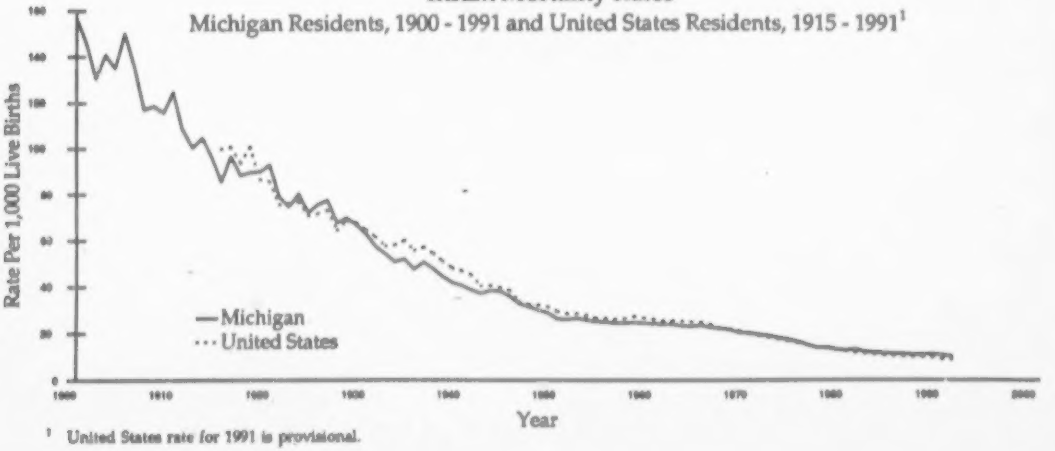
[1] United States number and rate for 1991 are provisional.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 2.7

Infant Mortality Rates

Michigan Residents, 1900 - 1991 and United States Residents, 1915 - 1991[1]



[1] United States rate for 1991 is provisional.

Table 2.23 shows the numbers of infant deaths and infant death rates by age at death for the period 1970-1991. The number of infants who died during the first week of life in 1991 (845) is greater than the number of deaths of infants aged 7-364 days (709). In 1991 64.5 percent of all infant deaths occurred within the first four weeks of life and 42.7 percent occurred in the first day. These percentages were 76.8 and 39.1 percent in 1970 and were 69.4 and 42.7 percent by 1980.

A review of Table 2.23 reveals that the 18.8 percent decline in the infant mortality rate since 1980 stems largely from reductions in the rate of death for those under 1 day, and between 1 and 6 days of age. There were 2.4 fewer infant deaths per 1,000 live births in 1991 than in 1980. Of these, there were 1.0 and 0.9 fewer infant deaths per 1,000 live births, respectively, for ages under 1 day and 1 to 6 days of life in 1991 than in 1980. They represented 79.2 percent of the reduction.

The death rate for infants during their first day of life declined 18.5 percent since 1980. The death rate for ages 1-6 days declined by 42.9 percent between 1980 and 1991. The death rate for infants aged 7-27 days had a lesser decrease of 15.4 percent below the 1980 level. The death rate for infants aged 28-364 days generally decreased between 1980 and 1988, but the rates after 1989 were greater than the 1988 rate. In 1991 the death rate for these infants was 3.7, 5.1 percent below the comparable rate for 1980.

Table 2.23

Infant Deaths and Infant Death Rates by Age at Death

Michigan Residents, Selected Years, 1970 - 1991

Year	Age at Death									
	Total <1 Year		<1 Day		1-6 Days		7 - 27 Days		28 - 364 Days	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1970	3,492	20.3	1,367	8.0	1,095	6.4	221	1.3	809	4.7
1975	2,205	16.5	856	6.4	461	3.4	246	1.8	642	4.8
1980	1,851	12.8	790	5.4	310	2.1	184	1.3	567	3.9
1985	1,575	11.4	697	5.1	217	1.6	157	1.1	504	3.7
1986	1,565	11.4	680	4.9	237	1.7	162	1.2	486	3.5
1987	1,538	10.9	660	4.7	217	1.5	152	1.1	509	3.6
1988	1,542	11.0	685	4.9	213	1.5	170	1.2	474	3.4
1989	1,645	11.1	703	4.7	208	1.4	159	1.1	575	3.9
1990	1,638	10.7	673	4.4	219	1.4	181	1.2	565	3.7
1991	1,554	10.4	663	4.4	182	1.2	158	1.1	551	3.7

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Infant death rates since 1970 for white, black and other races are graphically displayed in Figure 2.8. The rates used in this graph were calculated using the race of the mother for live births.

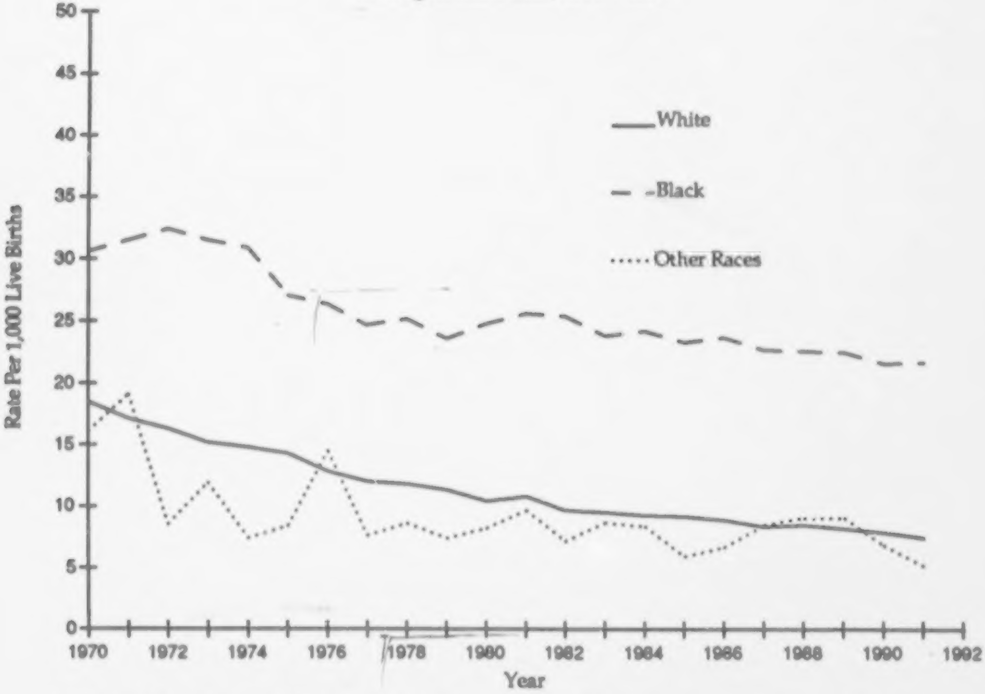
Black infant death rates were higher than rates for both of the other racial groups throughout the period. The infant death rate for other races was below the white infant death rate for all but five years in this twenty-two year period.

The infant mortality rate for infants of other races dropped 67.7 percent between 1970 and 1991. In the same period the rate for white infants dropped by 59.5 percent, while for black infants the decline was 29.1 percent. The rate for black infants of 30.6 in 1970 was 65.4 percent higher than that for white infants (18.5) and 90.1 percent higher than the rate for infants of other races (16.1). The infant death rate for white infants in 1970 was 14.9 percent higher than the corresponding rate for infants of other races. By 1991 the mortality rate for black infants (21.7) was 2.9 times higher than the rate for white infants (7.5) due to the slower decline in the mortality rates experienced by black infants than white infants during the twenty-two years.

Figure 2.8

Infant Death Rates by Race

Michigan Residents, 1970 - 1991[1]



[1] Starting in 1989 live birth numbers used in the calculation of infant death rates were enumerated by race of mother, prior to 1989 race of infant was used.

Table 2.24

Infant, Hebdomadal, Fetal and Perinatal Death Rates[1] by Race

Michigan Residents, 1991

Race	Live[2] Births	Infant Deaths		Hebdomadal Deaths[3]		Fetal Deaths		Perinatal Deaths	
		Number[4]	Rate	Number[4]	Rate	Number[5]	Rate	Number[6]	Rate
All Races	149,478	1,554	10.4	845	5.7	775	5.2	1,620	10.8
White	114,983	857	7.5	448	3.9	519	4.5	967	8.4
Black	31,543	683	21.7	393	12.5	216	6.8	609	19.2
American Indian	766	7	9.1	1	*	3	*	4	*
Asian/Pacific Islander	1,704	6	3.5	3	*	9	5.3	12	7.0
Other Non-White	52	-	-	-	-	-	-	-	*
Unknown	430	1	*	-	-	28	61.1	28	61.1

[1] Rates calculated using live births by race of mother as denominator.
[2] Mother's race on birth certificate.
[3] Death at age zero to six days.
[4] Infants race on death certificate.
[5] Mother's race on fetal death certificate.
[6] Mother's race on fetal death certificate, infant's race on death certificate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

In Table 2.24 infant, hebdomadal, fetal and perinatal deaths are presented by race. The infant mortality rates for black (21.7) and American Indian infants (9.1) were higher than the rate for white infants. The rate for Asian and Pacific Islander infants is less than half the rate for white infants.

The fetal, hebdomadal and perinatal rates generally followed similar patterns. The number of white fetal deaths was higher than the number of white hebdomadal deaths, but there were 81.9 percent more black hebdomadal deaths than black fetal deaths.

In Table 2.25 the number of infant deaths are presented by ancestry of the infant recorded on the death certificate, while the number of live births is presented by the mother's ancestry on the birth certificate. Infants of African ancestry have the highest infant death rate, 21.4 infant deaths per 1,000 live births. This is 87.7 percent higher than the next highest rate, 11.4, occurring to infants of Hispanic ancestry. The infant death rate of 7.7 among infants of Arab ancestry was lower than the rate for infants of European Ancestry (8.4).

Infant deaths of unknown ancestry accounted for 3.3 percent of the infant deaths. Among live births, 4.9 percent were reported on the birth certificate with mother's ancestry as unknown.

Table 2.25

Infant Deaths, Live Births and Infant Death Rates by Ancestry

Michigan Residents, 1991

Ancestry[1]	Infant Deaths	Live Births	Infant Death Rate
Total	1,554	149,478	10.4
African[2]	662	30,913	21.4
American Indian	22	2,128	10.3
Arab	18	2,327	7.7
Asian/Pacific Islander	4	1,437	*
European	552	66,002	8.4
Hispanic	50	4,388	11.4
Other	195	35,001	5.6
Unknown	51	7,282	7.0

[1] Ancestry of infant at death; ancestry of mother of the live births.

[2] Individuals who indicated black race and American ancestry have been allocated to African ancestry.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Michigan resident infant deaths in 1991 are listed by cause of death classification and age at death in Table 2.26. Disorders relating to short gestation and unspecified low birth weight was listed as the cause of 279 deaths and was the specific disease category most frequently reported. Congenital anomalies caused the death of 258 infants, while sudden infant death syndrome was responsible for 240 infant deaths in 1991. Half of all infant deaths were attributed to these conditions in 1991.

For those infant deaths which occurred during the first day of life, 71.5 percent were attributed to either congenital anomalies, disorders relating to short gestation and unspecified low birthweight, respiratory distress syndrome or other respiratory conditions of newborn. This proportion was 72.0 percent for deaths of infants at ages 1 through 6 days, and 55.7 percent for deaths of infants 7-27 days of age. This percentage dropped to 17.9 percent for infants from 1-5 months and 28.2 percent for those 6-11 months of age.

The most frequent specific cause of death category during the first day of life was disorders relating to short gestation and unspecified low birth weight (40.7 percent).

Congenital anomalies and respiratory distress syndrome were the leading causes of death for infants 1-27 days of age.

Sudden infant death syndrome was reported as the cause of 48.1 percent of the deaths to infants from 1-5 months of age. The leading causes of death for infants from 6-11 months of age were sudden infant death syndrome (20.0 percent) and congenital anomalies (18.2 percent). The 17 deaths due to accidents to infants aged 6-11 months represent 15.5 percent of the total deaths in this age group, while accidental deaths represent only 2.4 percent of all infant deaths.

Table 2.26

Infant Deaths by Age at Death and Underlying Cause

Michigan Residents, 1991

ICD - 9 CODE	Cause of Death	Age at Death					
		Total <1 Year	<1 Day	1-6 Days	7-27 Days	1-5 Months	6-11 Months
765	Disorders relating to short gestation and unspecified low birthweight	279	270	5	2	2	-
740-759	Congenital anomalies	258	81	57	45	55	20
798.0	Sudden infant death syndrome	240	-	-	6	212	22
769	Respiratory distress syndrome	158	73	51	24	8	2
770	Other respiratory conditions of newborn	108	50	18	17	14	9
E800-949	Accidents and adverse effects	38	1	2	-	18	17
E960-969	Homicide	12	1	-	-	7	4
Residual	All other causes	461	187	49	64	125	36
	Total	1,554	663	182	158	441	110

Source: Office of the State Registrar and Center for Health Statistics, MDPH

In Table 2.27 infant deaths and death rates by cause are shown for white, black and other race infants using race of mother for live births when calculating rates. The most frequent causes of death for white infants were congenital anomalies (187 deaths) and sudden infant death syndrome (133 deaths). These deaths represented 37.3 percent of all white infant deaths. In contrast, 42.9 percent of all black infant deaths are due to disorders relating to short gestation and unspecified low birth weight (171), respiratory distress syndrome (73) and other respiratory conditions of newborn (49). These three conditions usually result in death during the first day of life.

Cause-specific infant death rates for black infants were higher than white infants for all categories with sufficient events to calculate rates for racial groups.

The infant death rate from all causes for males was 34.1 percent greater than that for females (Table 2.28). The death rates for males due to sudden infant death syndrome was 65.5 percent greater than rates for females.

Table 2.27

Infant Deaths and Infant Death Rates by Race[1] and Underlying Cause

Michigan Residents, 1991

ICD - 9 Code	Cause of Death	Race							
		Total[2]		White		Black		All Other	
		Number	Rate[3]	Number	Rate[3]	Number	Rate[3]	Number	Rate[3]
765	Disorders relating to short gestation and unspecified low birthweight .	279	186.6	107	93.1	171	542.1	1	*
740-759	Congenital anomalies	258	172.6	187	162.6	65	206.1	6	237.9
798.0	Sudden infant death syndrome . . .	240	160.6	133	115.7	103	326.5	3	*
769	Respiratory distress syndrome	158	105.7	84	73.1	73	231.4	1	*
770	Other respiratory conditions of newborn	108	72.3	59	51.3	49	155.3	-	-
E800-949	Accidents and adverse effects	38	25.4	21	18.3	17	53.9	-	-
E960-969	Homicide	12	8.0	8	7.0	4	*	-	-
Residual	All other causes	461	308.4	258	224.4	201	637.2	2	*
	Total	1,554	1,039.6	857	745.3	683	2,165.3	13	515.5

[1] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

[2] Records with race not stated are included only in total columns.

[3] Rates per 100,000 live births.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.28

Infant Deaths and Infant Death Rates by Sex of Infant and Underlying Cause

Michigan Residents, 1991

ICD - 9 CODE	Cause of Death	Sex of Infant					
		Total[1]		Male		Female	
		Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
765	Disorders relating to short gestation and unspecified low birthweight	279	186.6	155	203.0	122	166.8
740-759	Congenital anomalies	258	172.6	125	163.7	131	179.1
798.0	Sudden infant death syndrome	240	160.6	152	199.1	88	120.3
769	Respiratory distress syndrome	158	105.7	91	119.2	67	91.6
770	Other respiratory conditions of newborn	108	72.3	62	81.2	46	62.9
E800-949	Accidents and adverse effects	38	25.4	24	31.4	14	19.1
E960-969	Homicide	12	8.0	9	11.8	3	*
Residual	All other causes	461	308.4	286	374.6	175	239.3
	Total	1,554	1,039.6	904	1,184.2	646	883.3

[1] Records with sex not stated are included only in total columns.
[2] Rates per 100,000 live births.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

In this section infant mortality rates are present for deaths among Michigan resident infants born in 1990. These data are from a file of merged live birth and infant death information. Note that the matched file contains more deaths to infants born in 1990 than were recorded during 1990 and the first three months of 1991. These deaths which are registered after the 1990 statistical data files are closed continue to be added to the matched file for research purposes.

Data from the matched file on infant mortality are presented by age and race of mother in Table 2.29. The infant mortality rate for black women, 21.6, was 2.6 times that for white women, 8.2. Infant deaths displayed a parabolic relationship with mother's age for infants born to white mothers. The rates were lowest for infants born to white mothers 25 to 29 years of age. The infant mortality rate was highest for infants born to black mothers under the age of 15. Among infants born to black mothers, the infant mortality rate was lowest for mothers 15 to 19 years of age and slowly climbs with advancing maternal age.

Table 2.29

Infant Deaths, Live Births and Infant Death Rates by Age and Race[1] of Mother

Michigan Resident Infants Born in 1990

Age of Mother	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
All Ages	1,706	153,080	11.1	966	118,180	8.2	688	31,842	21.6	21	2,623	8.0
Under 15	16	426	37.6	3	137	*	13	282	46.1	-	4	-
15-19	325	20,224	16.1	154	11,684	13.2	161	8,195	19.6	7	294	23.8
20-24	483	39,993	12.1	267	29,217	9.1	206	10,111	20.4	3	575	*
25-29	456	48,466	9.4	281	40,268	7.0	159	7,225	22.0	7	851	8.2
30-39	401	42,479	9.4	252	35,686	7.1	140	5,780	24.2	3	852	*
40 or More	17	1,422	12.0	9	1,136	7.9	7	235	29.8	1	46	*
Not Stated	8	70	114.3	-	52	-	2	14	*	-	1	-

[1] Race not stated included in total columns only.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Rates for black infants were significantly above those for the white group in all categories with a sufficient number of events to calculate rates. The smallest differential was for mothers 15-19 years of age, where the death rate for black infants was 48.5 percent greater than the rate for white infants.

Infant death rates increased when the mother received less adequate prenatal care as measured by the Kessner Index (Table 2.30). The infant death rate was 3.8 times greater for mothers with inadequate care (30.5 deaths per 1,000 live births) than for mothers with adequate care (8.0 deaths per 1,000 live births) and 1.7 times greater for mothers with intermediate care (13.3 deaths per 1,000 live births). The pattern was similar for both white and black infants.

When the mother received adequate care based on the number of visits, the month prenatal care began and the length of gestation, the infant death rate for black infants (16.2) was still 2.6 times greater than for infants born to white mothers (6.3 deaths per 1,000 live births).

Infant death rates by race, birth weight and age at death are displayed in Table 2.31 for infants born in 1990. While the overall infant death rate for black infants was 2.6 times that of white infants, the rate for black infants was only 7.5 percent higher than for white infants born weighing less than 1,500 grams. The rate for black infants weighing 1,500-2,499 grams was 14.2 percent lower than the comparable rate for white infants. For infants weighing 2,500 grams or more the rate for black infants was double the rate for white infants. A large part of the difference between infant death rates for white and black infants was due to the fact that a greater proportion of the infants born to black mothers were born at weights below 2,500 grams (14.7 percent for infants born to black mothers compared to 5.7 percent for infants born to white mothers).

Differentials in death rates by race for deaths under 28 days (neonatal deaths) and from 28-364 days (postneonatal deaths) departed somewhat from the pattern noted for all infant deaths. For infants weighing less than 1,500 grams, the neonatal rate for black infants was 4.6 percent higher than for white infants. The postneonatal rate for black infants, however, was 25.1 percent higher than the comparable rate for white infants. The neonatal rate for white infants weighing 1500-2,499 grams was 36.7 percent greater than the

Table 2.30
Infant Deaths, Live Births and Infant Death Rates by Level of Prenatal Care and Race[1]

Michigan Resident Infants Born in 1990

Level of Care (Kessner Index[2])	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
Total	1,706	153,080	11.1	966	118,180	8.2	688	31,842	21.6	21	2,623	8.0
Adequate	881	110,050	8.0	564	89,620	6.3	299	18,476	16.2	10	1,701	5.9
Intermediate	382	28,793	13.3	215	19,733	10.9	160	8,392	19.1	5	600	*
Inadequate	307	10,076	30.5	115	5,608	20.5	179	4,168	42.9	5	233	*
Unknown	136	4,161	32.7	72	3,219	22.4	50	806	62.0	1	89	*

[1] Race not stated included in total columns only.

[2] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.31
Live Births, Infant Deaths and Infant Death Rates by Birth Weight, Age at Death and Race

Michigan Resident Infants Born in 1990

Birth Weight	Race of Infant	Live Births	Age at Death					
			Under 1 Year		Under 28 Days		28 - 364 Days	
			Number	Rate	Number	Rate	Number	Rate
Total	All Races[1]	153,080	1,706	11.1	1,106	7.2	591	3.9
	White	118,180	966	8.2	598	5.1	365	3.1
	Black	31,842	688	21.6	471	14.8	211	6.6
	All Other	2,623	21	8.0	10	3.8	11	4.2
Less Than 1,500 Grams	All Races[1]	2,401	871	362.8	768	319.9	94	39.2
	White	1,229	425	345.8	380	309.2	42	34.2
	Black	1,122	417	371.7	363	323.5	48	42.8
	All Other	38	8	210.5	5	*	3	*
1,500-2,499 Grams	All Races[1]	9,207	244	26.5	137	14.9	107	11.6
	White	5,473	154	28.1	90	16.4	64	11.7
	Black	3,569	86	24.1	43	12.0	43	12.0
	All Other	127	3	23.6	3	*	-	-
2,500 Grams Or Greater	All Races[1]	141,330	566	4.0	177	1.3	389	2.8
	White	111,379	373	3.3	114	1.0	259	2.3
	Black	27,120	181	6.7	61	2.2	120	4.4
	All Other	2,456	9	3.7	1	*	8	3.3
Unknown Birthweight	All Races[1]	142	25	176.1	24	169.0	1	*
	White	99	14	141.4	14	141.4	-	-
	Black	31	4	*	4	*	-	-
	All Other	2	1	*	1	*	-	-

[1] Race not stated included in total rows only.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

comparable rate for black infants while the postneonatal death rate for black infants in this birth weight category exceeded the comparable rate for white infants by 2.6 percent. For infants weighing 2,500 grams or more at birth, the neonatal and postneonatal rates were about twice as high for black infants than white infants.

For total births in 1990, Michigan resident perinatal deaths numbered 1,756 and the perinatal death rate was 11.4 (Table 2.32). As with infant death rates, perinatal death rates vary considerably with race and age of mother. The overall perinatal mortality rate for black fetuses and infants was over 2.3 times the rate for white fetuses and infants.

Table 2.32 displays the increased risk of death to fetuses and infants of mothers under 20 years of age. The lowest rate was for mothers 40 or over. This represents a major departure from the past because perinatal rates were usually highest for this age group. The overall perinatal mortality rate for fetuses and infants of races other than black and white was 18.2 percent less than the white infant and fetus rate, and 64.7 percent less than the rate for black fetuses and infants.

The perinatal death rates increased for mothers with less than adequate prenatal care (Table 2.33). The death rate was 4.7 times higher for mothers with inadequate care than for mothers with adequate care (35.6 vs. 7.5 deaths per 1,000 total births respectively). The perinatal death rate for fetuses and infants born to black women with adequate care was 86.2 percent higher than the comparable rate for fetuses and infants of white women. The rate for fetuses and infants born to black mothers with inadequate care was 89.1 percent higher than the rate for fetuses and infants of white mothers with inadequate care.

Table 2.32

Perinatal Deaths, Total Births and Perinatal Death Rates by Age and Race[1] of Mother

Births to Michigan Residents in 1990

Age of Mother	All Races			White			Black			All Other Infants		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
All Ages	1,756	153,910	11.4	1,039	118,722	8.8	654	32,102	20.4	19	2,633	7.2
Under 15	8	427	18.7	3	138	•	5	282	•	-	4	-
15-19	280	20,342	13.8	134	11,747	11.4	138	8,248	16.7	4	295	•
20-24	387	40,153	9.6	208	29,318	7.1	167	10,164	16.4	4	579	•
25-29	486	48,678	10.0	305	40,414	7.5	163	7,286	22.4	7	852	8.2
30-39	431	42,668	10.1	293	35,825	8.2	129	5,826	22.1	1	853	•
40 or More	13	1,428	9.1	9	1,141	7.9	4	236	•	-	46	-
Not Stated	151	214	705.6	87	139	625.9	48	60	800.0	3	4	•

[1] Race not stated included in total columns only.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 2.33

Perinatal Deaths, Total Births and Perinatal Death Rates by Level of Prenatal Care and Race[1] of Mother

Births to Michigan Residents in 1990

Level of Care (Kessner Index[2])	All Races			White			Black			All Other Races		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
Total	1,756	153,910	11.4	1,039	118,722	8.8	654	32,102	20.4	19	2,633	7.2
Adequate	828	110,409	7.5	582	89,911	6.5	224	18,533	12.1	7	1,703	4.1
Intermediate	363	28,996	12.5	208	19,857	10.5	145	8,466	17.1	6	603	10.0
Inadequate	365	10,252	35.6	147	5,689	25.8	208	4,259	48.8	3	236	•
Unknown	200	4,253	47.0	102	3,265	31.2	77	844	91.2	3	91	•

[1] Race not stated included in total columns only.

[2] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Center for Health Statistics, MDPH

MARRIAGE & DIVORCE

SECTION III

MARRIAGE AND DIVORCE

AN OVERVIEW, 1991

Total Marriages	72,747
Total Divorces and Annulments	40,103
Marriage Rate[1]	15.7
Divorce Rate[1]	8.6
Median Age of the Bride	26
Median Age of the Groom	28
Median Age of Wife at Divorce Decree	34
Median Age of Husband at Divorce Decree	36
Median Duration of Marriage at Divorce Decree	7 Years

[1] Number of persons married or divorced per 1,000 population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 3.1

Marriages and Marriage Rates[1]

Michigan and United States[2] Occurrences

Selected Years, 1900 - 1991

United States		Year	Michigan	
Number	Rate		Number	Rate
709,000	18.6	1900	23,295	19.2
948,000	20.5	1910	29,039	20.7
1,274,476	23.9	1920	50,805	27.7
1,126,856	18.3	1930	29,482	12.2
1,595,879	24.2	1940	46,342	17.6
1,667,231	22.1	1950	58,180	18.3
1,523,000	17.0	1960	61,090	15.6
2,158,802	21.2	1970	91,933	20.7
2,390,252	21.2	1980	86,898	18.8
2,425,000	20.4	1985	79,022	17.4
2,407,099	20.0	1986	77,815	17.0
2,403,378	19.8	1987	74,418	16.2
2,395,926	19.4	1988	75,386	16.3
2,404,000Pr.	19.4Pr.	1989	76,210	16.4
2,448,000Pr.	19.6Pr.	1990	76,099	16.4
2,371,000Pr.	18.8Pr.	1991	72,747	15.7

[1] Number of persons married per 1,000 population.

[2] Beginning with 1978, marriage data for the United States include nonlicensed marriages registered in California. If nonlicensed marriages were included in the 1977 total, the marriage rate would increase from 19.8 to 20.1.

Pr.=Provisional data

Source: Office of the State Registrar and Center for Health Statistics, MDPH

The number of marriages and divorces occurring in Michigan has increased considerably since 1900. While the frequency of marriage has generally followed the growth of Michigan's population, the rate of persons dissolving their marriages has increased over fourfold since 1900.

The smallest number of marriages in this century was 23,295 in 1900, while the largest number was 94,486 in 1973. In 1991 there were 72,747 marriages, the smallest number since 1963. The marriage rate was 15.7 per 1,000 population, the lowest rate since 1960.

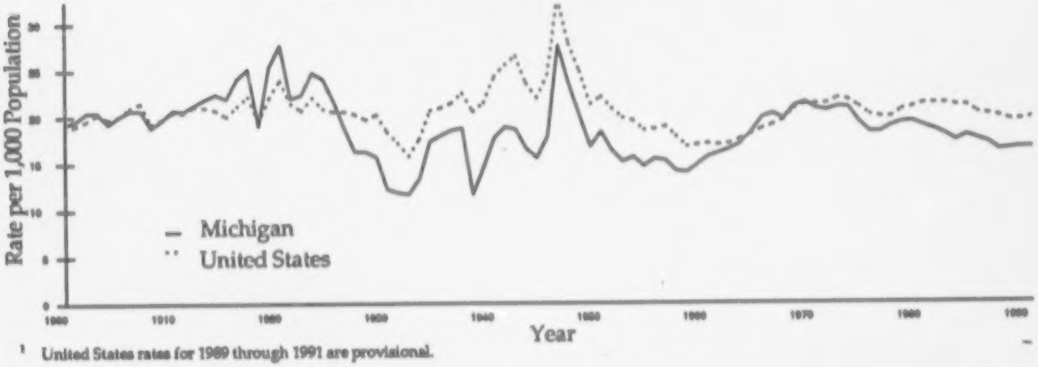
The number of divorces and annulments increased from a low of 2,435 in 1900 to a high of 45,047 in 1980. In 1991 the number of divorces and annulments was 40,103. The divorce rate was 8.6 per 1,000 populations.

MARRIAGES

Since 1900 there have been noticeable changes in the marriage rates both nationally and in Michigan (Table 3.1 and Figure 3.1). Both nationally and in Michigan strong historic shifts in rates have been related most notably to the factors of war and the economy. The highest rates observed during this century were for the years immediately following the end of the two World Wars (27.7 in 1920 and 27.6 in 1946). The lowest rates occurred during the Great Depression of the 1930's.

The number of persons married each year per 1,000 population was higher in Michigan than in the country for 19 of the 26 years from 1900 through 1925. Since 1926, Michigan's marriage rate has been lower than the national rate, except during 1964 through 1969.

Figure 3.1
Marriage Rates
Michigan and United States Occurrences, 1900-1991[1]



[1] United States rates for 1989 through 1991 are provisional.

RESIDENCE OF COUPLES MARRYING IN MICHIGAN

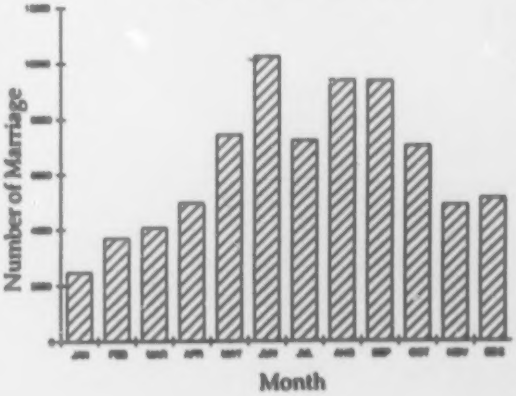
When presenting statistics of births, deaths and fetal deaths it is possible to provide total resident figures due to an interstate agreement for exchange of nonresident event information. Thus, should a Michigan resident give birth in some other state, the state will forward the information to Michigan. No such agreement exists for marriages. This is an important consideration when analyzing marriage statistics. The marriage data presented are drawn from all marriages performed in the state regardless of the couple's residence.

In general, most of the couples marrying in Michigan are residents of the state. For marriages occurring in Michigan in 1991, 95.4 percent of the brides were residents of Michigan, while 93.1 percent of the grooms were residents of the state. These data indicate that the general characteristics of marriages occurring in Michigan should be representative of marriage patterns for Michigan residents.

MONTH OF MARRIAGE

The number of marriages occurring in Michigan varies with the seasons (Figure 3.2). The most popular months for marriages in 1991 were August, June and September, with 9,951, 9,464 and 7,758 marriage ceremonies being performed during these months respectively. About 2 out of every 3 marriages occurred in the six months between May and October. Fewer marriages occurred during the winter months. The lowest figure was for January, with 24.2 percent of the number which occurred in August.

Figure 3.2
Marriages by Month
Michigan Occurrences, 1991



AGE AT MARRIAGE

Examination of the data in Table 3.2 reveals that females generally marry at a younger age than do males. The number of females who marry before the age of 20 was 2.6 times the corresponding number of males in 1991. Between ages 20 and 24, 28.2 percent more females than males marrying. Among persons 25 and over, the number of males marrying was greater than females marrying. The median age of brides (26 years) marrying in Michigan was two years lower than the median age for grooms (28 years).

Since 1971, there have been significant declines in the marriage rates for persons of both sexes under the age of 25 years. The largest decline observed was for males under the age of 20 years for whom the marriage rate has dipped 82.8 percent. For individuals between 25 and 44 years of age, the marriage rate for males and females increased. The rates for persons 45 and over were about the same for males and females during these twenty years.

FIRST MARRIAGES

First marriages are an interesting component of all marriages in that they constitute an event that can never be duplicated. The frequency of first marriages reflects the propensity of the population as a whole to enter into marital agreements.

There has been a decline in the number of first marriages between 1981 and 1991. The number of first marriages dropped 18.3 percent for women and 14.7 percent for men (Tables 3.3 and 3.4).

Table 3.2

Number of Marriages and Marriage Rates[1] by Age and Sex

Michigan Occurrences, 1971, 1981 and 1991

Age in Years	Males				Females			
	1971	1981	1991		1971	1981	1991	
	Rate	Rate	Number	Rate	Rate	Rate	Number	Rate
Under 20[2]	36.6	13.8	2,239	6.3	76.6	36.8	5,897	17.1
20-24	122.7	70.8	18,089	51.6	90.9	73.6	23,185	65.1
25-34	34.8	40.0	32,534	42.1	21.7	30.6	28,179	35.2
35-44	12.6	17.6	12,050	17.5	9.5	12.3	10,424	14.6
45 or Over	6.7	6.3	7,835	6.1	4.4	3.4	5,062	3.3
Total	21.0	18.9	72,747	16.1	20.1	17.9	72,747	15.2
Median Age at Last Birthdate	28				26			

[1] Number of persons married per 1,000 population.

[2] 15 - 19 population used to obtain rate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Changes in the frequency of first marriages have varied in different age groups. The greatest decline in first marriages occurred in the under 20 age group for both brides and grooms, between 1981 and 1991. The number of first marriages also declined substantially for brides and grooms in the 20-24 year age group. There were significant increases in the number of first marriages of both brides and grooms between ages 25 and 44.

Between 1981 and 1991 the percentages of marriages which were first marriages increased slightly for each age groups below 45 years of age.

Table 3.3
Number of Marriages of Brides by Age and Order of Marriage
Michigan Occurrences, 1981 and 1991

Age in Years	1981					1991				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	85,252	58,006	68.0	21,371	5,860	72,747	47,415	65.2	19,099	6,216
Under 20	15,886	15,723	99.0	152	3	5,897	5,851	99.2	44	-
20-24	33,327	29,931	89.8	3,253	142	23,185	21,744	93.8	1,393	43
25-29	16,311	9,466	58.0	6,019	821	17,788	13,186	74.1	4,180	418
30-34	8,089	2,029	25.1	4,722	1,337	10,391	4,599	44.3	4,749	1,041
35-39	4,101	449	10.9	2,542	1,110	6,383	1,396	21.9	3,468	1,519
40-44	2,553	160	6.3	1,560	833	4,041	416	10.3	2,241	1,383
45 or Over	4,981	247	5.0	3,120	2,447	5,062	223	4.4	3,024	1,812
Not Stated	4	1	25.0	3	-	-	-	-	-	-
Median Age at Last Birthday	23	21		31	37	26	24		34	40

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 3.4
Number of Marriages of Grooms by Age and Order of Marriage
Michigan Occurrences, 1981 and 1991

Age in Years	1981					1991				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	85,252	56,017	65.7	22,932	6,284	72,747	47,759	65.7	18,813	6,159
Under 20	6,086	6,070	99.7	10	-	2,239	2,235	99.8	3	-
20-24	31,241	29,698	95.1	1,500	38	18,089	17,567	97.1	512	6
25-29	20,582	14,834	72.1	5,324	422	20,539	17,520	85.3	2,853	160
30-34	10,462	3,790	36.2	5,530	1,139	11,995	7,061	58.9	4,315	616
35-39	5,663	879	15.5	3,511	1,272	7,194	2,271	31.6	3,776	1,146
40-44	3,443	279	8.1	2,142	1,022	4,856	699	14.4	2,785	1,372
45 or Over	7,770	464	6.0	4,913	2,391	7,835	406	5.2	4,569	2,859
Not Stated	5	3	60.0	2	-	-	-	-	-	-
Median Age at Last Birthday	25	23		34	41	28	25		37	44

Source: Office of the State Registrar and Center for Health Statistics, MDPH

MEDIAN AGE AT FIRST MARRIAGE

The median age at first marriage declined for both brides and grooms between 1953 and the mid-1960's (Figure 3.3). The initial decline was greater for males than for females.

Grooms were 34 months older than brides at the median in 1953, 23 months older in 1963 and 20 months older in 1968. During the past fifteen years, the median age at first marriage has increased by about the same amount for both males and females. Grooms were 24 months older than brides at the median in 1991.

The median age at first marriage in 1991 was 24 years 1 month for brides and 25 years 11 months for grooms.

REMARRIAGES

The proportion of all marriages which were remarriages is displayed graphically in Figure 3.4 for the period 1960-1991. Between 1960 and 1965, the proportion of remarriages dropped. Since 1965, this proportion has increased. The increase in the period 1972 through 1975 was especially marked for both sexes. Between 1975 and 1991 the percent of all marriages that were remarriages gradually increased.

The number of remarriages among females decreased by 7.0 percent between 1981 and 1991, while the number of brides who had been married at least three times previously increased by 6.1 percent. Total remarriages for grooms decreased by 14.5 percent, while the number of third or higher order marriages increased slightly (2.0 percent).

As remarriages can only occur when a prior marriage has been terminated by a divorce, an annulment or the death of a spouse, it is apparent that persons remarrying will be generally older. Tables 3.3 and 3.4 demonstrate that the order of marriage has a strong positive relationship with the age of both brides and grooms. Note, however, the upward shift between 1981 and 1991 in the age distribution for first and higher order marriages for both brides and grooms.

Figure 3.3
Median Age at First Marriage by Sex
Michigan Occurrences, 1953 - 1991

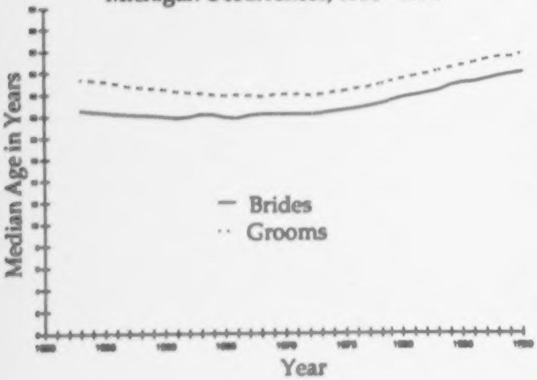
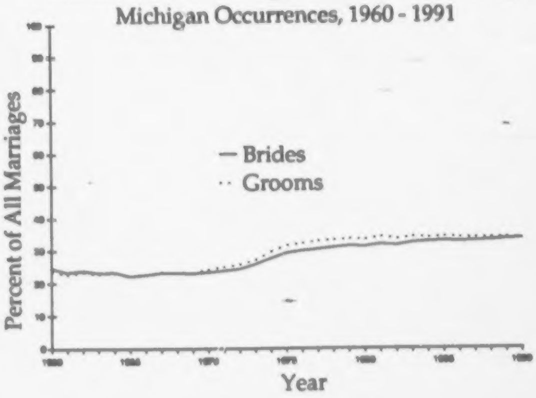


Figure 3.4
Percent of All Marriages that are Remarriages
Michigan Occurrences, 1960 - 1991



DIVORCES AND ANNULMENTS

The number of reported divorces and annulments reached a record high in 1980, in Michigan and in 1981 in the nation (Table 3.5). Between 1980 and 1985, the Michigan frequency declined. The number then increased to 40,103 in 1991. The 1991 frequency was 11.0 percent below the 1980 frequency. Nationally, the provisional number of divorces in 1991 was 2.1 percent below the record high figure set in 1981 (1,213,000).

The number of persons divorced in Michigan per thousand population generally increased from 2.0 in 1900 to the then century high of 5.1 in 1929, then declined between 1930 and 1933 to 3.1 (Figure 3.5). Between 1934 and 1946 the rate generally increased, peaking at 10.2 in 1946. The rate of divorces and annulments decreased to 3.6 in 1958 and increased to a high of 9.8 in 1978. It has fluctuated between 8.3 and 8.7 since 1982.

Table 3.5

Number of Divorces and Annulments

Divorce and Annulment Rates[1]

Michigan and United States Occurrences

Selected Years, 1900 - 1991

United States		Year	Michigan	
Number	Rate		Number	Rate
56,000	1.5	1900	2,435	2.0
8,300	1.8	1910	3,716	2.6
170,505	3.2	1920	8,679	4.7
195,961	3.2	1930	10,639	4.4
264,000	4.0	1940	12,054	4.6
385,144	5.1	1950	15,979	5.0
393,000	4.4	1960	16,656	4.3
708,000	7.0	1970	29,934	6.7
1,189,000	10.5	1980	45,047	9.7
1,190,000	10.0	1985	38,775	8.5
1,178,000	9.8	1986	39,553	8.7
1,166,000	9.6	1987	39,857	8.7
1,167,000	9.4	1988	40,103	8.7
1,163,000Pr.	9.4Pr.	1989	40,276	8.7
1,175,000Pr.	9.4Pr.	1990	40,568	8.7
1,187,000Pr.	9.4Pr.	1991	40,103	8.6

[1] Number of persons whose marriages ended in divorce or annulment per 1,000 population.

Pr.=Provisional Data

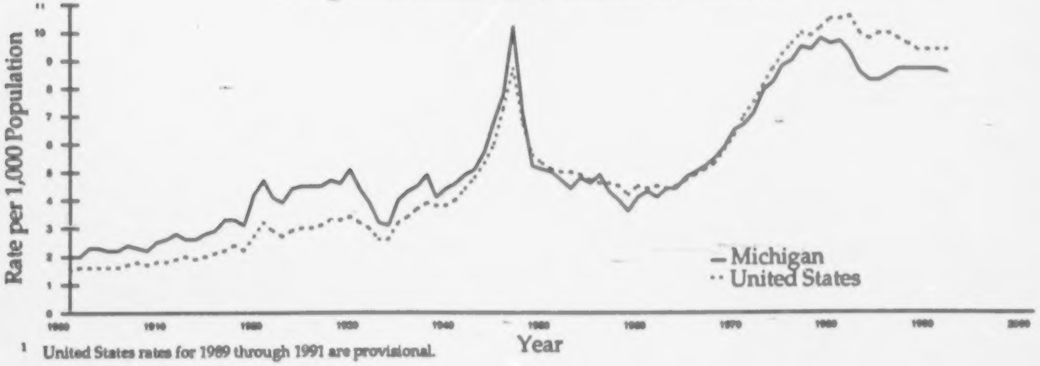
Source: Office of the State Registrar and Center for Health Statistics, MDPH

The national rates generally followed the same pattern, reaching a provisional rate of 9.4 in 1991. Michigan's divorce rate was higher than that for the United States each year from 1900 through 1947. In the following 44 years the Michigan divorce rate has been at or below the national rate 37 times, including each of the past 22 years. The lowest national rate was 1.5 in 1900. The highest national divorce rate during this century was recorded in 1981 (10.6).

Figure 3.5

Divorce Rates

Michigan and United States Occurrences, 1900-1991[1]



[1] United States rates for 1989 through 1991 are provisional.

The number of children under 18 of couples dissolving marriages in 1991 was at least 39,000 (Table 3.6). This is 21.3 percent below the peak number of 49,555 in 1976. The number of children affected by divorce has, however, increased as a proportion of all children. This ratio increased from 6.5 per 1,000 Michigan children in 1960 to 12.5 in 1970 and to a peak of 18.2 by 1981 (Table 3.6). It was 15.7 in 1991. The average number of children per divorce has, nonetheless, dropped from a high of 1.37 children in 1971 to a low of 0.97 in 1991.

Data for the United States indicate a similar pattern.

Table 3.6

Estimated Number of Children Involved in Divorces and Annulments, Average Number of Children Per Decree, and Rate Per 1,000 Children Under 18 Years of Age

Michigan and United States, Selected Years 1960 - 1991

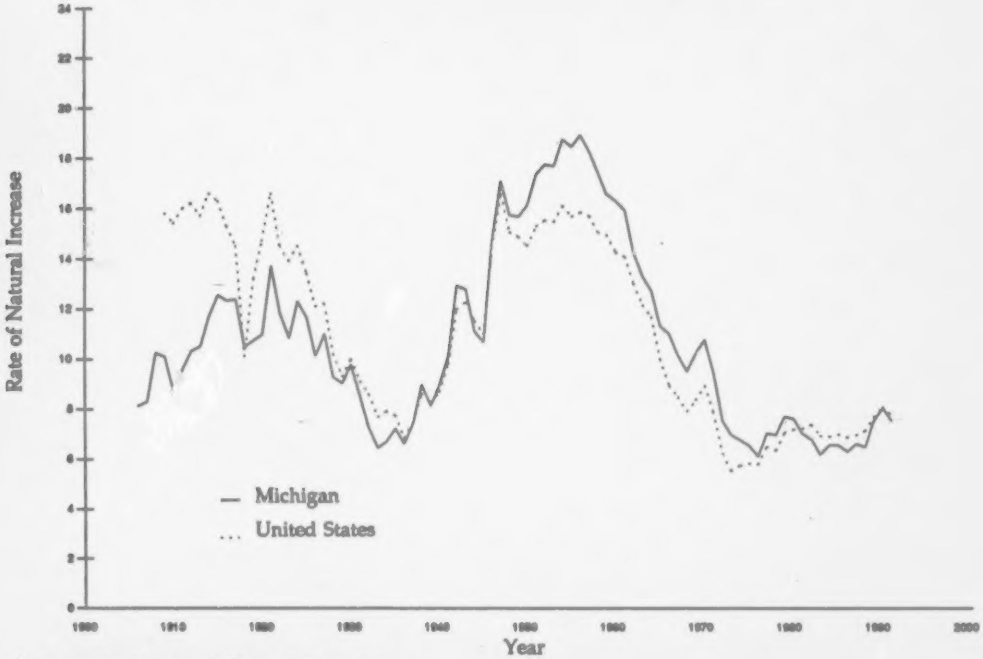
Michigan				United States		
Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age	Year	Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age
19,209	1.15	6.5	1960	463,000	1.18	7.2
40,596	1.36	12.5	1970	870,000	1.22	12.5
46,603	1.04	16.9	1980	1,174,000	0.98	17.3
45,461	1.05	18.2	1981	1,180,000	0.97	18.7
41,156	1.04	16.9	1982	1,108,000	0.94	17.6
38,712	1.02	16.2	1983	1,091,000	0.94	17.4
37,629	1.00	14.8	1984	1,081,000	0.92	17.2
38,673	1.00	15.3	1985	1,091,000	0.92	17.3
39,378	1.00	15.7	1986	1,064,000	0.90	16.8
39,321	1.00	14.8	1987	1,038,000	0.89	16.3
39,635	0.99	15.0	1988	1,044,000	0.89	16.4
39,897	0.99	15.2	1989	——	—	—
39,792	0.98	16.0	1990	——	—	—
39,000	0.97	15.7	1991	——	—	—

Source: Office of the State Registrar and Center for Health Statistics, MDPH

REFERENCE APPENDIX

SECTION IV

Figure 4.1
Rate of Natural Increase[1]
Michigan, 1906 - 1991 and the United States, 1909 - 1991[2]



[1] Excess of live births over deaths per 1,000 population.

[2] Rates for the United States for 1909 - 1932 are based on death rates from the Death Registration States and estimated birth rates for the United States, adjusted for under-registration. For 1933 - 1959 rates are based on registered deaths in the United States and births adjusted for under-registration. After 1959 rates are based on registered births and deaths. 1991 United States data are provisional.

Table 4.1

Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces

Michigan, 1900 - 1991

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1900	2,420,982	43,699	32,453	6,866				1,325	452	23,295	2,435
1901	2,459,901	43,221	32,834	6,319				1,501	531	24,079	2,448
1902	2,498,820	45,546	31,472	5,949				1,793	468	25,653	2,828
1903	2,537,739	46,020	33,176	6,488				1,814	427	26,029	2,945
1904	2,576,658	47,508	34,494	6,419				1,911	436	24,918	2,808
1905	2,615,578	46,976	34,679	8,054				2,044	416	26,307	2,825
1906	2,654,497	58,599	37,033	7,952				2,358	400	27,519	3,192
1907	2,693,416	59,029	36,701	6,906				2,358	391	27,940	3,107
1908	2,732,335	64,772	36,761	7,697				2,694	440	25,765	3,020
1909	2,771,254	64,323	36,313	7,443				2,540	405	27,353	3,516
1910	2,810,173	64,109	39,913	7,998				2,559	431	29,039	3,716
1911	2,895,997	65,756	38,007	7,131				2,716	451	29,859	4,125
1912	2,981,821	69,537	38,804	6,985				2,906	396	31,694	3,838
1913	3,067,645	73,058	40,827	7,659				2,953	528	33,529	3,978
1914	3,153,469	76,761	39,906	7,431				3,113	507	35,316	4,395
1915	3,239,293	81,100	40,441	6,943				3,357	488	35,527	4,757
1916	3,325,116	87,062	46,047	8,415				3,689	503	40,143	5,540
1917	3,410,940	89,419	47,236	7,916				3,550	586	42,791	5,627
1918	3,496,764	91,261	54,617	8,197				3,686	709	33,260	5,493
1919	3,582,588	84,062	45,636	7,560				3,361	578	45,579	7,469
1920	3,668,412	92,245	51,982	8,587				3,770	795	50,805	8,679
1921	3,785,799	96,035	44,186	7,584				3,669	605	41,508	7,676
1922	3,903,186	90,042	43,817	6,730				3,779	551	43,561	7,591
1923	4,020,573	92,956	49,333	7,477				3,657	583	49,569	8,745
1924	4,137,960	98,187	47,304	7,088	4,119	2,969	6,791	3,703	636	49,788	9,400
1925	4,255,347	98,983	49,417	7,498	4,022	3,476	6,667	3,670	629	46,276	9,650
1926	4,372,734	98,289	54,080	7,620	4,054	3,566	6,773	3,816	631	39,788	9,795
1927	4,490,121	99,940	50,600	6,766	3,915	2,851	6,794	3,834	667	36,276	10,617
1928	4,607,508	97,462	54,755	6,806	3,739	3,067	6,594	3,701	603	37,300	10,615
1929	4,724,895	98,695	56,117	6,605	3,777	2,828	6,613	3,710	617	36,816	12,094

[1] 1990 Census population is being used to calculate 1991 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.1 (continued)
Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces
Michigan, 1900 - 1991

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1930	4,842,325	98,882	51,561	6,213	3,624	2,589	6,518	3,714	597	29,482	10,639
1931	4,883,703	90,547	49,068	5,187	3,084	2,103	5,643	3,220	539	28,856	9,507
1932	4,925,081	85,254	49,569	4,630	2,798	1,832	5,210	2,980	493	28,552	7,889
1933	4,966,459	80,482	48,507	4,094	2,591	1,503	4,906	2,776	447	33,132	7,671
1934	5,007,837	83,944	50,440	4,377	2,717	1,660	4,781	2,607	450	43,241	10,124
1935	5,049,216	87,403	51,051	4,170	2,550	1,620	4,832	2,717	438	45,313	10,844
1936	5,090,594	88,457	54,777	4,479	2,647	1,832	4,726	2,625	425	47,023	11,419
1937	5,131,972	91,566	53,468	4,374	2,700	1,674	4,919	2,707	326	47,954	12,472
1938	5,173,350	96,962	50,678	4,319	2,734	1,585	4,984	2,732	345	30,105	10,646
1939	5,214,728	94,432	52,017	3,952	2,594	1,358	4,706	2,572	280	37,725	11,589
1940	5,256,106	99,106	52,092	4,022	2,629	1,393	4,749	2,602	292	46,342	12,054
1941	5,437,546	107,498	52,671	4,166	2,687	1,479	4,991	2,769	298	50,989	13,317
1942	5,538,856	124,068	52,738	4,606	3,091	1,515	5,581	3,067	260	51,582	14,085
1943	5,377,329	125,441	56,774	4,804	2,979	1,825	5,563	3,213	237	44,385	15,259
1944	5,377,329	113,586	54,016	4,326	2,784	1,542	5,140	2,874	198	41,678	18,356
1945	5,435,092	111,557	53,641	4,008	2,670	1,338	4,906	2,703	166	48,329	21,133
1946	5,708,415	138,572	54,856	4,541	3,323	1,218	5,978	3,168	163	78,808	29,158
1947	6,069,000	160,275	56,807	5,055	3,677	1,378	6,583	3,422	173	71,319	21,386
1948	6,195,000	153,726	56,520	4,617	3,352	1,265	5,968	3,132	120	61,986	16,017
1949	6,352,000	156,469	57,107	4,520	3,232	1,288	5,746	2,994	105	53,109	16,274
1950	6,371,766	160,055	57,567	4,214	3,043	1,171	5,781	3,095	91	58,180	15,979
1951	6,545,000	172,451	59,181	4,505	3,296	1,209	6,088	3,158	94	53,411	15,446
1952	6,708,000	177,835	59,138	4,689	3,414	1,275	6,266	3,224	82	50,487	14,925
1953	6,852,000	182,968	62,087	4,728	3,369	1,339	6,188	3,180	79	53,308	16,537
1954	7,024,000	192,104	60,706	4,795	3,560	1,235	6,415	3,249	94	51,243	16,281
1955	7,236,000	196,294	63,087	4,873	3,707	1,166	6,381	3,029	61	55,698	17,676
1956	7,516,000	206,068	64,352	5,047	3,796	1,251	6,655	3,245	84	57,068	16,228
1957	7,803,000	208,488	66,435	5,093	3,884	1,209	6,668	3,154	79	55,121	15,442
1958	7,866,000	202,690	65,899	4,980	3,789	1,191	6,516	3,101	69	55,159	14,040
1959	7,960,000	198,301	66,812	4,846	3,674	1,172	6,250	2,928	72	58,826	16,168

[1] 1990 Census population is being used to calculate 1991 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.1 (continued)
Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces
Michigan, 1900 - 1991

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1960	7,823,194	195,056	67,912	4,702	3,580	1,122	6,247	3,008	75	61,090	16,656
1961	[illegible]	192,825	67,375	4,604	3,475	1,129	5,875	2,735	78	63,320	16,219
1962	[illegible]	182,790	70,049	4,367	3,251	1,116	5,669	2,703	56	65,002	17,500
1963	[illegible]	178,871	72,438	4,150	3,109	1,041	5,407	2,540	71	68,150	17,479
1964	[illegible]	175,103	72,129	4,043	3,071	972	5,293	2,466	62	73,911	19,400
1965	8,199,283	166,464	73,665	3,936	2,909	1,027	5,139	2,475	54	81,247	20,305
1966	8,314,070	165,794	74,596	3,751	2,830	921	4,909	2,295	54	83,903	21,727
1967	8,615,000	162,756	75,360	3,595	2,714	881	4,693	2,195	52	84,363	23,620
1968	8,675,000	159,058	76,855	3,438	2,617	821	4,476	2,064	44	90,984	25,400
1969	8,734,000	165,760	76,693	3,356	2,550	806	4,488	2,175	27	93,392	28,347
1970	8,875,083	171,667	76,321	3,492	2,671	821	4,522	2,060	29	91,933	29,934
1971	8,972,000	162,244	77,395	3,157	2,412	745	4,139	1,923	32	92,134	31,790
1972	9,025,000	146,854	79,210	2,801	2,115	686	3,700	1,765	35	94,447	35,505
1973	9,072,000	141,550	78,522	2,561	1,902	659	3,392	1,682	26	94,486	37,128
1974	9,109,000	137,414	76,143	2,387	1,734	653	2,947	1,438	19	88,023	39,940
1975	9,108,000	133,931	74,522	2,205	1,563	642	2,673	1,356	16	82,856	40,782
1976	9,117,000	131,378	75,801	1,978	1,424	554	2,495	1,264	14	82,753	43,101
1977	9,157,000	138,416	74,144	1,945	1,367	578	2,452	1,284	11	86,088	43,036
1978	9,202,000	138,802	74,773	1,931	1,281	650	2,302	1,201	15	88,333	45,029
1979	9,249,000	144,452	73,480	1,921	1,295	626	2,285	1,175	11	89,450	44,242
1980	9,262,078	145,162	74,991	1,851	1,284	567	2,235	1,135	16	86,898	45,047
1981	9,270,000	140,579	75,818	1,851	1,281	570	2,151	1,040	7	85,252	43,167
1982	9,227,327	137,950	75,536	1,672	1,202	470	1,988	954	11	82,633	39,739
1983	9,155,480	133,026	76,639	1,573	1,067	506	1,843	933	6	78,910	37,991
1984	9,074,622	135,782	76,401	1,595	1,100	495	1,884	929	4	80,810	37,563
1985	9,088,341	138,052	78,635	1,575	1,071	504	1,867	953	9	79,022	38,775
1986	9,144,545	137,626	80,177	1,565	1,079	486	1,782	865	11	77,815	39,553
1987	9,199,871	140,466	79,795	1,538	1,029	509	1,701	824	8	74,418	39,857
1988	9,239,811	139,635	80,075	1,542	1,068	474	1,659	761	11	75,386	40,103
1989	9,273,429	148,164	78,566	1,645	1,070	575	1,792	881	13	76,210	40,276
1990	9,295,297	153,080	78,501	1,638	1,073	565	1,722	830	10	76,099	40,568
1991	9,295,297	149,478	79,738	1,554	1,003	551	1,620	775	16	72,747	40,103

[1] 1990 Census population is being used to calculate 1991 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.2

Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates

Michigan, 1900 - 1991[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 10,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1900	18.1	13.4	157.1				30.3	103.4	19.2	2.0
1901	17.6	13.3	146.2				34.7	122.9	19.6	2.0
1902	18.2	12.6	130.6				39.4	102.8	20.5	2.3
1903	18.1	13.1	141.0				39.4	92.8	20.5	2.3
1904	18.4	13.4	135.1				40.2	91.8	19.3	2.2
1905	18.0	13.3	150.2				43.5	88.6	20.1	2.2
1906	22.1	14.0	135.7				40.2	68.3	20.7	2.4
1907	21.9	13.6	117.0				39.9	66.2	20.7	2.3
1908	23.7	13.5	118.8				41.6	67.9	18.9	2.2
1909	23.2	13.1	115.7				39.5	63.0	19.7	2.5
1910	22.8	14.2	124.8				39.9	67.2	20.7	2.6
1911	22.7	13.1	108.4				41.3	68.6	20.6	2.8
1912	23.3	13.0	100.4				41.8	56.9	21.3	2.6
1913	23.8	13.3	104.8				40.4	72.3	21.9	2.6
1914	24.3	12.7	96.8				40.6	66.0	22.4	2.8
1915	25.0	12.5	85.6				41.4	60.2	21.9	2.9
1916	26.2	13.8	96.7				42.4	57.8	24.1	3.3
1917	26.2	13.8	88.5				39.7	65.5	25.1	3.3
1918	26.1	15.6	89.8				40.4	77.7	19.0	3.1
1919	23.5	12.7	89.9				40.0	68.8	25.4	4.2
1920	25.1	14.2	93.1				40.9	86.2	27.7	4.7
1921	25.4	11.7	79.0				38.2	63.0	21.9	4.1
1922	23.1	11.2	74.7				42.0	61.2	22.3	3.9
1923	23.1	12.3	80.4				39.3	62.7	24.7	4.4
1924	23.7	11.4	72.2	41.9	30.2	66.7	37.7	64.8	24.1	4.5
1925	23.3	11.6	75.7	40.6	35.1	64.9	37.1	63.5	21.7	4.5
1926	22.5	12.4	77.5	41.2	36.3	66.3	38.8	64.2	18.7	4.5
1927	22.3	11.3	67.7	39.2	28.5	65.5	38.4	66.7	16.2	4.7
1928	21.2	11.9	69.8	38.4	31.5	65.2	38.0	61.9	16.2	4.6
1929	20.9	11.9	66.9	38.3	28.7	64.6	37.6	62.5	15.6	5.1

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised pop[illegible]n estimates.

[2] 1990 Census population is being used to calculate 1991 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1971 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.2 (continued)
Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates
Michigan, 1900 - 1991[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 10,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1930	20.4	10.6	62.8	36.6	26.2	63.5	37.6	60.4	12.2	4.4
1931	18.5	10.1	57.3	34.1	23.2	60.2	35.6	59.5	11.8	3.9
1932	17.3	10.1	54.3	32.8	21.5	59.0	35.0	57.8	11.6	3.2
1933	16.2	9.8	50.9	32.2	18.7	58.9	34.5	55.5	13.3	3.1
1934	16.8	10.1	52.1	32.4	19.8	55.2	31.1	53.6	17.3	4.0
1935	17.3	10.1	47.7	29.2	18.5	53.6	31.1	50.1	17.9	4.3
1936	17.4	10.8	50.6	29.9	20.7	51.9	29.7	48.0	18.5	4.5
1937	17.8	10.4	47.8	29.5	18.3	52.2	29.6	35.6	18.7	4.9
1938	18.7	9.8	44.5	28.2	16.3	50.0	28.2	35.6	11.6	4.1
1939	18.1	10.0	41.8	27.5	14.4	48.5	27.2	29.6	14.5	4.4
1940	18.9	9.9	40.6	26.5	14.1	46.7	26.3	29.5	17.6	4.6
1941	19.8	9.7	38.8	25.0	13.8	45.3	25.8	27.7	18.8	4.9
1942	22.4	9.5	37.1	24.9	12.2	43.9	24.7	21.0	18.6	5.1
1943	23.3	10.6	38.3	23.7	14.5	43.2	25.6	18.9	16.5	5.7
1944	21.1	10.0	38.1	24.5	13.6	44.1	25.3	17.4	15.5	6.8
1945	20.5	9.9	35.9	23.9	12.0	42.9	24.2	14.9	17.8	7.8
1946	24.3	9.6	32.8	24.0	8.8	42.2	22.9	11.8	27.6	10.2
1947	26.4	9.4	31.5	22.9	8.6	40.2	21.4	10.8	23.5	7.1
1948	24.8	9.1	30.0	21.8	8.2	38.0	20.4	7.8	20.0	5.2
1949	24.6	9.0	28.9	20.7	8.2	36.0	19.1	6.7	16.7	5.1
1950	25.1	9.0	26.3	19.0	7.3	35.4	19.3	5.7	18.3	5.0
1951	26.3	9.0	26.1	19.1	7.0	34.7	18.3	5.5	16.3	4.7
1952	26.5	8.8	26.4	19.2	7.2	34.6	18.1	4.6	15.1	4.4
1953	26.7	9.1	25.8	18.5	7.3	33.2	17.4	4.3	15.6	4.8
1954	27.3	8.6	25.0	18.5	6.4	32.8	16.9	4.9	14.6	4.6
1955	27.1	8.7	24.8	18.9	5.9	32.0	15.4	3.1	15.4	4.9
1956	27.4	8.6	24.5	18.4	6.1	31.8	15.7	4.1	15.2	4.3
1957	26.7	8.5	24.4	18.6	5.8	31.5	15.1	3.8	14.1	4.0
1958	25.8	8.4	24.6	18.7	5.9	31.7	15.3	3.4	14.0	3.6
1959	24.9	8.4	24.4	18.5	5.9	31.1	14.8	3.6	14.8	4.1

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

[2] 1990 Census population is being used to calculate 1991 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.2 (continued)

Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates

Michigan, 1900 - 1991[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 10,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1960	24.9	8.7	24.1	18.4	5.8	31.5	15.4	3.8	15.6	4.3
1961	24.4	8.5	23.9	18.0	5.9	30.0	14.2	4.0	16.0	4.1
1962	23.0	8.8	23.9	17.8	6.1	30.6	14.8	3.1	16.4	4.4
1963	22.3	9.0	23.2	17.4	5.8	29.8	14.2	4.0	17.0	4.4
1964	21.6	8.9	23.1	17.5	5.6	29.8	14.1	3.5	18.2	4.8
1965	20.3	9.0	23.6	17.5	6.2	30.4	14.9	3.2	19.8	5.0
1966	19.9	9.0	23.6	17.1	5.6	29.2	13.8	3.3	20.2	5.2
1967	18.9	8.7	22.1	16.7	5.4	28.4	13.5	3.2	19.6	5.5
1968	18.3	8.9	21.6	16.5	5.2	27.8	13.0	2.8	21.0	5.9
1969	19.0	8.8	20.2	15.4	4.9	26.7	13.1	1.6	21.4	6.5
1970	19.3	8.6	20.3	15.6	4.8	26.0	12.0	1.7	20.7	6.7
1971	18.1	8.6	19.5	14.9	4.6	25.2	11.9	2.0	20.5	7.1
1972	16.3	8.8	19.1	14.4	4.7	24.9	12.0	2.4	20.9	7.9
1973	15.6	8.7	18.1	13.4	4.7	23.7	11.9	1.8	20.8	8.2
1974	15.1	8.4	17.4	12.6	4.8	21.2	10.5	1.4	19.3	8.8
1975	14.7	8.2	16.5	11.7	4.8	19.8	10.1	1.2	18.2	9.0
1976	14.4	8.3	15.1	10.8	4.2	18.8	9.6	1.1	18.2	9.5
1977	15.1	8.1	14.1	9.9	4.2	17.6	9.3	0.8	18.8	9.4
1978	15.1	8.1	13.9	9.2	4.7	16.4	8.7	1.1	19.2	9.8
1979	15.6	7.9	13.3	9.0	4.3	15.7	8.1	0.8	19.3	9.6
1980	15.7	8.1	12.8	8.8	3.9	15.3	7.8	1.1	18.8	9.7
1981	15.2	8.2	13.2	9.1	4.1	15.2	7.4	0.5	18.4	9.3
1982	15.0	8.2	12.1	8.7	3.4	14.3	6.9	0.8	17.9	8.6
1983	14.5	8.4	11.8	8.0	3.8	13.8	7.0	0.5	17.2	8.3
1984	15.0	8.4	11.7	8.1	3.6	13.8	6.8	*	17.8	8.3
1985	15.2	8.7	11.4	7.8	3.7	13.4	6.9	0.7	17.4	8.5
1986	15.1	8.8	11.4	7.8	3.5	12.9	6.3	0.8	17.0	8.7
1987	15.3	8.7	10.9	7.3	3.6	12.0	5.7	0.6	16.2	8.7
1988	15.1	8.7	11.0	7.6	3.4	11.9	5.4	0.8	16.3	8.7
1989	16.0	8.5	11.1	7.2	3.9	12.0	5.9	0.9	16.4	8.7
1990	16.5	8.4	10.7	7.0	3.7	11.2	5.4	0.7	16.4	8.7
1991	16.1	8.6	10.4	6.7	3.7	10.8	5.2	1.1	15.7	8.6

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

[2] 1990 Census population is being used to calculate 1991 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.3
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1991

Year	All Ages[1]	Age of Mother								
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1920	92,740	34	8,129	26,344	26,251	17,521	10,427	3,523	336	175
1921	96,322	39	8,747	26,583	27,292	18,433	11,150	3,572	337	169
1922	90,209	28	8,125	24,575	25,154	17,690	10,584	3,485	343	225
1923	93,066	37	8,725	25,887	25,459	18,072	10,770	3,476	382	258
1924	98,025	38	9,877	28,000	25,781	18,707	11,395	3,682	321	224
1925	99,220	62	10,248	28,116	26,204	18,869	11,406	3,695	379	241
1926	98,781	76	10,496	28,479	25,876	18,444	11,219	3,568	354	269
1927	100,178	59	10,685	29,302	25,707	18,790	11,287	3,722	332	294
1928	97,797	54	10,788	28,895	25,003	17,953	10,913	3,558	315	318
1929	99,134	56	11,312	30,582	25,557	16,957	10,555	3,523	293	299
1930	99,325	60	11,476	29,956	25,861	17,125	10,684	3,582	291	290
1931	90,929	61	10,109	27,255	23,806	15,937	9,905	3,317	302	237
1932	85,736	62	9,297	25,686	22,608	14,988	9,314	3,250	291	240
1933	80,923	52	8,642	23,874	21,618	14,298	8,795	3,173	261	210
1934	83,925	48	9,039	25,458	22,507	14,968	8,391	3,050	259	205
1935	87,446	47	9,808	27,631	22,938	15,026	8,473	3,029	284	210
1936	88,427	53	9,764	28,681	23,584	14,814	8,194	2,866	274	197
1937	91,539	54	10,524	30,532	24,366	15,022	7,949	2,653	242	197
1938	96,963	64	11,024	32,581	26,116	15,690	8,397	2,698	253	140
1939	94,302	51	10,368	31,036	26,095	15,976	8,021	2,416	209	130
1940	99,021	51	10,671	32,960	27,860	16,549	8,146	2,390	202	192
1941	107,458	50	11,309	36,833	31,067	17,132	8,351	2,361	200	155
1942	123,886	66	12,721	43,947	36,034	19,367	8,985	2,445	202	119
1943	125,778	67	11,934	41,627	37,773	21,449	9,980	2,615	184	149
1944	114,700	76	10,113	36,096	33,654	21,094	10,636	2,714	182	135
1945	112,655	73	9,294	32,790	33,143	22,831	11,185	2,970	229	140
1946	139,277	72	10,899	45,999	41,985	25,184	11,811	3,002	223	102
1947	161,085	91	15,594	55,954	47,793	26,296	12,009	3,073	182	93
1948	154,730	95	16,245	53,520	45,059	25,268	11,391	2,888	173	91
1949	157,178	117	16,404	53,608	46,363	25,971	11,565	2,906	181	63

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.3 (continued)
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1991

Year	All Ages[1]	Age of Mother								
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1950	160,955	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92
1951	173,506	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84
1952	178,634	134	17,206	58,012	54,198	31,756	13,880	3,176	220	52
1953	182,810	166	18,510	58,070	54,734	32,948	14,798	3,350	190	44
1954	192,332	208	20,522	60,776	55,962	35,152	15,862	3,598	220	32
1955	196,623	195	21,417	61,952	56,462	35,968	16,554	3,862	198	15
1956	206,226	192	22,808	66,332	58,392	36,870	17,282	4,172	164	14
1957	208,808	190	23,798	67,086	58,424	36,980	17,956	4,160	200	14
1958	202,900	222	23,034	65,834	55,130	36,278	17,892	4,296	196	18
1959	198,576	200	21,922	65,426	53,434	34,934	18,030	4,424	198	8
1960	195,056	186	22,786	65,108	51,842	33,228	17,410	4,288	202	6
1961	192,825	212	23,891	64,336	50,277	32,456	17,067	4,363	203	20
1962	182,790	268	22,702	62,243	47,109	29,817	16,160	4,250	224	17
1963	178,871	210	21,686	62,834	46,063	28,364	15,117	4,359	229	9
1964	175,103	264	22,526	62,196	44,671	26,542	14,509	4,162	220	13
1965	166,464	267	24,653	59,439	40,693	23,767	13,528	3,886	211	20
1966	165,794	310	28,690	60,711	39,225	21,205	11,846	3,547	223	37
1967	162,756	316	27,267	61,541	40,052	19,840	10,479	3,059	178	24
1968	159,058	400	26,390	60,072	41,561	18,613	9,095	2,739	163	25
1969	165,760	421	28,061	63,376	44,615	18,535	8,157	2,433	134	28
1970	171,667	489	29,764	65,892	46,262	19,003	7,904	2,223	118	12
1971	162,244	472	28,480	62,367	43,639	18,259	6,975	1,926	112	14
1972	146,854	503	28,108	54,199	40,442	16,133	5,805	1,555	95	14
1973	141,550	569	27,808	51,284	39,845	15,520	5,163	1,277	62	22
1974	137,414	501	25,977	49,975	40,215	15,317	4,291	1,063	50	25
1975	133,931	463	24,509	48,675	40,061	14,891	4,273	982	54	23
1976	131,378	404	22,593	47,161	41,412	14,893	4,053	799	47	16
1977	138,416	426	22,585	49,740	43,346	17,293	4,178	771	51	26
1978	138,802	345	21,487	49,498	43,744	18,367	4,562	729	50	20
1979	144,452	355	21,239	51,319	46,084	19,962	4,720	715	41	17

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.3 (continued)
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1991

Year	All Ages[1]	Age of Mother							
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1980	145,162	331	20,000	51,218	47,113	21,024	4,692	740	22	22
1981	140,579	300	18,397	47,737	46,527	22,178	4,701	695	34	10
1982	137,950	319	17,344	45,586	45,995	22,564	5,395	711	29	7
1983	133,026	328	16,589	42,034	45,065	22,505	5,669	791	38	7
1984	135,782	341	16,442	41,664	45,908	24,320	6,295	780	30	2
1985	138,052	352	16,279	41,125	47,049	25,491	6,864	851	36	5
1986	137,626	335	16,536	39,611	46,421	26,331	7,503	842	35	12
1987	140,466	329	16,911	39,314	47,052	27,795	8,038	969	46	12
1988	139,635	371	17,003	37,529	45,924	28,469	8,553	1,094	54	638
1989	148,164	396	19,149	39,352	47,853	30,462	9,571	1,207	58	116
1990	153,080	426	20,224	39,992	48,466	32,058	10,421	1,382	40	71
1991	149,478	414	19,325	39,546	45,995	32,025	10,627	1,464	36	46

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.4
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1991

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1920	0.2	55.7	173.1	164.0	124.2	83.8	34.3	3.8	3,195.5
1921	0.2	56.9	167.3	165.5	125.8	84.8	32.8	3.6	3,184.5
1922	0.2	50.8	149.6	149.1	117.3	77.1	30.7	3.5	2,891.5
1923	0.2	52.6	152.6	147.5	116.5	75.4	29.3	3.8	2,889.5
1924	0.2	57.4	160.0	146.1	117.3	76.7	29.9	3.1	2,953.5
1925	0.3	57.4	155.9	145.4	115.2	73.9	28.8	3.5	2,902.0
1926	0.4	56.9	153.3	140.5	109.7	70.1	26.8	3.2	2,804.5
1927	0.3	56.0	153.3	136.8	108.9	68.1	27.0	2.9	2,766.5
1928	0.2	54.8	147.1	130.3	101.5	63.7	25.0	2.6	2,626.0
1929	0.2	55.7	151.5	130.6	93.6	59.6	23.9	2.4	2,587.5
1930	0.3	55.2	145.5	130.2	92.8	58.9	23.7	2.3	2,544.5
1931	0.3	47.8	130.4	118.3	85.3	54.3	21.5	2.3	2,301.0
1932	0.3	43.4	121.5	111.0	79.4	50.8	20.8	2.2	2,148.0
1933	0.2	39.7	111.6	105.2	75.0	47.7	20.0	1.9	2,006.5
1934	0.2	41.0	117.6	108.4	77.8	45.3	18.9	1.8	2,055.0
1935	0.2	43.9	126.2	109.4	77.4	45.5	18.5	2.0	2,115.5
1936	0.2	43.1	129.5	111.4	75.5	43.8	17.3	1.8	2,113.0
1937	0.2	45.9	136.4	113.9	75.9	42.3	15.8	1.6	2,160.0
1938	0.3	47.4	143.9	120.9	78.5	44.4	15.8	1.6	2,264.0
1939	0.2	44.1	135.6	119.6	79.2	42.3	14.0	1.3	2,181.5
1940	0.2	44.9	142.8	126.8	81.5	42.8	13.7	1.2	2,269.5
1941	0.2	48.1	157.8	137.1	81.6	42.5	13.2	1.2	2,408.5
1942	0.3	54.5	186.6	155.3	89.9	44.7	13.4	1.2	2,729.5
1943	0.3	51.6	175.1	159.0	97.1	48.6	14.1	1.1	2,734.5
1944	0.3	44.1	150.5	138.5	93.2	50.6	14.3	1.0	2,462.5
1945	0.3	40.8	135.5	133.4	98.5	52.1	15.4	1.3	2,386.5
1946	0.3	48.3	188.5	165.3	106.2	53.8	15.3	1.2	2,894.5
1947	0.4	69.7	227.3	184.2	108.4	53.6	15.4	1.0	3,300.0
1948	0.4	73.2	215.5	170.0	101.9	49.8	14.2	1.0	3,130.0
1949	0.5	74.6	214.0	171.4	102.5	49.6	14.1	1.0	3,138.5

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1991

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1950	0.5	74.6	212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4	79.1	229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5	73.5	233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6	76.8	234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7	82.8	246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955	0.6	84.1	253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956	0.6	87.2	272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6	88.6	277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958	0.6	83.6	273.4	221.5	134.3	65.0	17.2	0.9	3,982.5
1959	0.6	77.6	273.3	217.4	128.6	64.4	17.3	0.9	3,900.5
1960	0.5	79.3	273.1	213.0	121.8	61.4	16.6	0.9	3,833.0
1961	0.6	78.1	252.0	200.7	120.2	61.3	16.8	0.9	3,653.0
1962	0.7	70.7	231.5	183.9	111.4	58.9	16.3	0.9	3,371.5
1963	0.5	64.6	222.5	175.9	107.0	55.9	16.6	0.9	3,219.5
1964	0.6	64.2	210.1	167.0	101.0	54.4	15.8	0.9	3,070.0
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.0	154.0	76.1	32.4	8.3	0.4	2,584.5
1971	1.0	63.7	157.3	142.4	71.2	29.0	7.4	0.4	2,353.0
1972	1.1	61.6	137.4	122.7	60.8	24.2	6.1	0.4	2,071.0
1973	1.2	59.9	128.0	117.5	55.2	21.5	5.1	0.2	1,945.0
1974	1.1	55.3	122.3	113.7	52.4	17.7	4.4	0.2	1,846.5
1975	1.0	52.0	116.8	109.3	49.6	17.5	4.2	0.2	1,771.0
1976	0.9	48.0	111.0	107.5	49.1	16.3	3.4	0.2	1,709.5
1977	1.0	48.4	114.3	112.7	52.9	16.3	3.3	0.2	1,767.0
1978	0.8	46.5	111.5	111.6	54.5	16.8	3.1	0.2	1,739.5
1979	0.9	46.7	114.0	114.9	57.0	16.8	3.0	0.2	1,774.0

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1991

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1980	0.8	44.8	113.1	115.6	58.4	16.4	3.1	0.1	1,761.5
1981	0.8	41.3	103.5	110.8	59.5	16.2	3.0	0.2	1,817.5
1982	0.9	39.2	98.0	107.6	59.2	18.4	3.1	0.1	1,811.5
1983	0.9	37.9	89.8	104.0	58.0	19.3	3.6	0.2	1,772.5
1984	1.0	43.8	103.8	111.4	65.2	19.3	3.0	0.1	1,738.0
1985	1.0	43.9	104.1	115.1	67.1	20.5	3.1	0.2	1,775.0
1986	1.0	45.2	101.6	114.4	68.3	21.8	2.9	0.1	1,776.5
1987	1.0	46.9	102.3	117.1	71.5	22.9	3.3	0.2	1,826.0
1988	1.1	47.8	99.2	115.8	73.0	23.9	3.6	0.2	1,823.0
1989	1.2	54.6	105.7	122.3	78.2	26.4	3.8	0.2	1,962.0
199[illegible]	1.3	58.8	112.3	125.0	77.5	27.5	4.1	0.2	2,033.6
1991	1.3	56.4	111.1	118.7	77.4	28.0	4.4	0.0	1,986.6

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.5
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1991

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningo-coccal Infections[2]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	2,706	694	5,122	3,375	20,356		2,721	654				
1901	2,498	5,088	3,002	2,955	4,629		2,915	506				
1902	2,993	7,086	2,456	3,534	11,978		2,658	528				
1903	3,670	6,341	2,840	4,172	8,941		2,745	525				
1904	3,510	5,753	3,028	1,779	10,386		2,928	448				
1905	2,159	2,985	2,774	1,196	6,061		2,590	577				
1906	3,648	1,240	3,163	1,364	7,403		2,653	533				
1907	2,935	1,712	1,953	872	12,139		2,699	575				
1908	2,658	2,306	2,656	1,248	4,775		2,705	487				
1909	3,109	1,533	2,694	1,054	9,047		3,423	457				
1910	3,433	3,319	3,361	1,136	13,934		4,415	522	104			
1911	3,762	888	2,660	1,897	9,639		5,254	478	68			
1912	3,294	1,127	2,847	1,255	2,834		1,958	88	78			
1913	5,505	1,995	2,253	929	9,185		1,920	165	56			
1914	5,149	1,527	2,167	1,822	11,356		2,566	205	49			
1915	4,386	1,094	1,956	2,258	4,438		3,648	107	95			
1916	5,625	1,581	2,513	1,837	12,143		7,076	163	598			
1917	8,499	3,674	1,723	3,211	14,472		4,856	75	91			
1918	6,128	5,241	1,339	2,563	6,726		3,655	95	121			
1919	7,896	2,381	1,254	1,829	8,885		4,231	75	155	5,077	7,910	
1920	10,360	4,818	1,421	7,171	22,364		4,994	203	67	8,117	11,463	
1921	12,075	4,512	1,837	6,696	3,043		5,708	173	483	7,421	9,774	
1922	8,513	1,230	1,108	5,642	12,107		5,573	159	43	7,900	9,717	
1923	7,725	2,311	982	7,617	30,041		5,471	186	39	10,480	9,597	
1924	6,011	4,527	782	4,364	18,290		5,570	157	647	13,000	10,490	
1925	3,925	784	962	7,576	10,332		5,785	128	99	14,668	10,660	
1926	5,377	549	583	8,776	39,946		5,387	96	107	14,872	10,707	
1927	4,575	1,467	581	6,818	8,303		5,406	138	282	15,713	9,318	
1928	3,724	1,335	390	9,700	27,039		5,885	276	77	15,323	8,592	
1929	4,618	2,410	310	9,340	18,040		6,248	1,864	180	16,606	9,661	

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1991

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningococcal Infections[2]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	3,206	2,375	504	7,937	28,129		5,128	901	208	16,538	8,554	
1931	1,831	915	424	11,448	6,212		6,132	293	1,137	14,662	7,843	
1932	1,188	222	513	13,091	42,129		7,103	129	112	11,969	6,963	
1933	1,152	46	453	11,720	21,654		6,624	86	93	7,691	6,447	
1934	614	49	486	11,255	6,528		5,264	53	230	6,483	6,188	
1935	645	16	355	13,427	79,061		4,642	113	614	6,416	6,372	
1936	661	32	287	14,287	2,453		5,157	120	152	6,401	6,460	
1937	842	152	241	11,426	6,154		6,469	87	421	8,708	7,072	
1938	619	274	285	14,563	79,400		6,335	69	59	14,684	7,046	
1939	452	371	177	8,997	12,948		6,119	46	904	13,144	6,364	
1940	264	76	120	11,757	20,206		6,063	49	1,228	9,999	7,650	
1941	242	114	147	16,512	70,748		5,371	49	270	11,370	8,767	
1942	243	17	74	11,602	8,569		5,720	66	162	12,461	8,753	
1943	281	18	115	12,091	51,764		6,546	757	255	15,933	9,526	
1944	419	10	78	4,049	26,711		6,419	857	884	17,288	11,987	
1945	630	16	59	5,339	6,328	134	5,471	270	215	16,046	12,565	
1946	385	3	85	8,116	42,261	34	5,548	185	1,091	18,051	12,635	
1947	238	1	77	10,472	9,574	14	6,470	113	646	15,276	10,989	
1948	126	-	49	2,668	42,952	9	6,109	107	775	12,100	9,448	
1949	119	-	48	4,157	20,279	28	5,953	120	2,909	8,740	9,427	
1950	84	-	43	9,184	38,245	48	5,538	133	2,029	8,830	8,678	
1951	48	-	33	3,156	15,227	325	6,144	138	1,463	6,532	8,494	
1952	45	-	53	1,992	32,941	283	6,152	169	3,912	7,377	7,691	
1953	12	-	31	2,932	23,334	868	5,643	151	2,346	5,619	8,790	
1954	57	-	30	5,620	40,725	1,419	5,764	150	2,168	4,686	9,940	
1955	59	-	24	4,249	23,882	1,244	5,488	170	1,177	4,865	10,306	
1956	220	-	56	1,907	41,966	814	5,515	182	656	4,785	9,598	
1957	130	-	12	1,363	19,070	657	5,011	175	498	4,571	8,428	
1958	6	-	18	1,233	41,448	688	5,587	228	1,228	4,267	8,621	
1959	3	-	8	3,001	12,234	1,136	4,743	141	448	3,421	8,033	

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1991

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningo-coccal Infections[2]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	9	-	14	1,129	36,161	2,113	4,127	169	88	3,647	8,372	
1961	3	-	7	639	29,391	4,607	3,838	253	40	3,309	9,505	
1962	4	-	12	1,756	25,303	3,280	3,474	139	21	4,331	11,654	
1963	5	-	14	1,410	48,752	2,661	3,298	104	18	5,512	11,043	
1964	1	-	13	957	30,897	2,472	3,047	80	3	5,220	12,028	
1965	-	-	7	612	28,132	2,625	3,069	107	1	5,638	14,319	
1966	1	-	7	653	15,251	2,589	3,259	135	1	5,842	15,424	
1967	1	-	8	1,058	1,048	1,915	2,951	76	3	5,581	17,088	
1968	-	-	1	429	353	2,356	2,618	94	3	5,351	18,153	
1969	-	-	6	192	401	3,359	2,133	114	1	3,809	18,534	
1970	-	-	14	195	1,834	4,594	1,992	69	2	3,920	20,359	
1971	1	-	10	140	2,659	4,828	1,789	64	-	4,800	22,260	
1972	1	-	7	116	2,353	4,322	1,632	55	1	4,891	24,750	
1973	-	-	14	86	4,552	3,872	1,473	54	-	4,375	31,086	
1974	-	-	11	104	2,365	3,599	1,431	54	2	2,722	32,067	
1975	1	-	10	98	3,253	2,877	1,271	76	-	1,638	32,583	
1976	-	-	10	70	6,139	2,645	1,349	65	1	1,089	34,836	
1977	-	-	13	73	1,392	2,686	1,290	51	-	1,185	36,794	
1978	-	-	15	47	8,006	2,174	1,260	87	1	1,133	36,647	
1979	-	-	14	102	869	2,036	1,052	79	-	1,275	36,906	
1980	1	-	12	38	250	1,799	1,185	77	1	1,110	35,125	
1981	-	-	26	30	34	1,700	966	93	-	926	32,316	2
1982	-	-	14	34	64	1,745	932	81	-	917	32,286	2
1983	-	-	10	43	8	1,788	842	91	-	695	34,052	16
1984	-	-	9	31	465	1,728	630	90	-	763	34,758	31
1985	-	-	8	54	113	1,490	535	107	-	673	33,516	64
1986	-	-	5	35	185	1,266	619	81	-	584	37,920	149
1987	-	-	5	54	42	1,610	540	111	1	621	37,348	260
1988	-	-	5	38	54	1,202	526	92	-	1,105	37,412	439
1989	-	-	6	48	359	1,044	464	70	-	1,613	33,627	510
1990	-	-	8	88	545	1,111	504	69	-	2,625	30,779	576
1991	-	-	12	38	66	1,120	451	75	-	3,520	27,015	470

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningo-coccal Infections[3]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	111.8	28.7	211.6	139.4	840.8		112.4	27.0				
1901	101.5	206.8	122.0	120.1	188.2		118.5	20.6				
1902	119.8	283.6	98.3	141.4	479.3		106.4	21.1				
1903	144.6	249.9	111.9	164.4	352.3		108.2	20.7				
1904	136.2	223.3	117.5	69.0	403.1		113.6	17.4				
1905	82.5	114.1	106.1	45.7	231.7		99.0	22.1				
1906	137.4	46.7	119.2	51.4	278.9		99.9	20.1				
1907	109.0	63.6	72.5	32.4	450.7		100.2	21.3				
1908	97.3	84.4	97.2	45.7	174.8		99.0	17.8				
1909	112.2	55.3	97.2	38.0	326.5		123.5	16.5				
1910	122.2	118.1	119.6	40.4	495.8		157.1	18.6	3.7			
1911	129.9	31.0	91.8	65.5	332.8		181.4	16.5	2.3			
1912	110.5	37.8	95.5	42.1	95.0		65.7	3.0	2.6			
1913	179.5	65.0	73.4	30.3	299.4		62.6	5.4	1.8			
1914	163.3	48.4	68.7	57.8	360.1		81.4	6.5	1.6			
1915	135.4	33.8	60.4	69.7	137.0		112.6	3.3	2.9			
1916	169.2	47.5	75.6	55.2	365.2		212.8	4.9	18.0			
1917	249.2	107.7	50.5	94.1	424.3		142.4	2.2	2.7			
1918	175.2	149.9	38.3	73.3	192.4		104.5	2.7	3.5			
1919	220.4	66.5	35.0	51.1	248.0		118.1	2.1	4.3	141.7	220.8	
1920	282.4	131.3	38.7	195.5	609.6		136.1	5.5	1.8	221.3	312.8	
1921	318.9	119.2	48.5	176.9	80.4		150.8	4.6	12.8	196.0	258.2	
1922	218.1	31.5	28.4	144.5	310.2		142.8	4.1	1.1	202.4	248.9	
1923	192.1	57.5	24.4	189.5	747.2		136.1	4.6	1.0	260.7	238.7	
1924	145.3	109.4	18.9	105.5	442.0		134.6	3.8	15.6	314.2	253.5	
1925	92.2	18.4	22.6	178.0	242.8		135.9	3.0	2.3	344.7	250.5	
1926	123.0	12.6	13.3	200.7	913.5		123.2	2.2	2.4	340.1	244.9	
1927	101.9	32.7	12.9	151.8	184.9		120.4	3.1	6.3	349.9	207.5	
1928	80.8	29.0	8.5	210.5	586.9		127.7	6.0	1.7	332.6	186.5	
1929	97.7	51.0	6.6	197.7	381.8		132.2	39.4	3.8	351.4	204.5	

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningo-coccal Infections[3]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	66.2	49.0	10.4	163.9	580.9		105.9	18.6	4.3	341.5	176.6	
1931	37.5	18.7	8.7	234.4	127.2		125.6	6.0	23.3	300.2	160.6	
1932	24.1	4.5	10.4	265.8	855.4		144.2	2.6	2.3	243.0	141.4	
1933	23.2	0.9	9.1	236.0	436.0		133.4	1.7	1.9	154.9	129.8	
1934	12.3	1.0	9.7	224.8	130.4		105.1	1.1	4.6	129.5	123.6	
1935	12.8	0.3	7.0	265.9	1,565.8		91.9	2.2	12.2	127.1	126.2	
1936	13.0	0.6	5.6	280.7	48.2		101.3	2.4	3.0	125.7	126.9	
1937	16.4	3.0	4.7	222.6	119.9		126.1	1.7	8.2	169.7	137.8	
1938	12.0	5.3	5.5	281.5	1,534.8		122.5	1.3	1.1	283.8	136.2	
1939	8.7	7.1	3.4	172.5	248.3		117.3	0.9	17.3	252.0	122.0	
1940	5.0	1.4	2.3	223.7	384.4		115.3	0.9	23.4	190.2	145.5	
1941	4.5	2.1	2.7	303.7	1,301.1		98.8	0.9	5.0	209.1	161.2	
1942	4.4	0.3	1.3	209.5	154.7		103.3	1.2	2.9	225.0	158.0	
1943	5.2	0.3	2.1	224.8	962.6		121.7	14.1	4.7	296.3	177.1	
1944	7.8	0.2	1.5	75.3	496.7		119.4	15.9	16.4	321.5	222.9	
1945	11.6	0.3	1.1	98.2	116.4	2.5	100.7	5.0	4.0	295.2	231.2	
1946	6.7	*	1.5	142.2	740.3	0.6	97.2	3.2	19.1	316.2	221.3	
1947	3.9	*	1.3	172.5	157.8	0.2	106.6	1.9	10.6	251.7	181.1	
1948	2.0	-	0.8	43.1	693.3	0.1	98.6	1.7	12.5	195.3	152.5	
1949	1.9	-	0.8	65.4	319.3	0.4	93.7	1.9	45.8	137.6	148.4	
1950	1.3	-	0.7	144.1	600.2	0.8	86.9	2.1	31.8	138.6	136.2	
1951	0.7	-	0.5	48.2	232.7	5.0	93.9	2.1	22.4	99.8	129.8	
1952	0.7	-	0.8	29.7	491.1	4.2	91.7	2.5	58.3	110.0	114.7	
1953	0.2	-	0.5	42.8	340.5	12.7	82.4	2.2	34.2	82.0	128.3	
1954	0.8	-	0.4	80.0	579.8	20.2	82.1	2.1	30.9	66.7	141.5	
1955	0.8	-	0.3	58.7	330.0	17.2	75.8	2.3	16.3	67.2	142.4	
1956	2.9	-	0.7	25.4	558.4	10.8	73.4	2.4	8.7	63.7	127.7	
1957	1.7	-	0.2	17.5	244.4	8.4	64.2	2.2	6.4	58.6	108.0	
1958	0.1	-	0.2	15.7	526.9	8.7	71.0	2.9	15.6	54.2	109.6	
1959	*	-	0.1	37.7	153.7	14.3	59.6	1.8	5.6	43.0	100.9	

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningo-coccal Infections[3]	Polio	Syphilis	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	0.1	-	0.2	14.4	462.2	27.0	52.8	2.2	1.1	46.6	107.0	
1961	*	-	0.1	8.1	371.9	58.3	48.6	3.2	0.5	41.9	120.3	
1962	*	-	0.2	22.1	318.7	41.3	43.8	1.8	0.3	54.6	146.8	
1963	*	-	0.2	17.6	607.1	33.1	41.1	1.3	0.2	68.6	137.5	
1964	*	-	0.2	11.8	381.4	30.5	37.6	1.0	*	64.4	148.5	
1965	-	-	0.1	7.5	343.1	32.0	37.4	1.3	*	68.8	174.6	
1966	*	-	0.1	7.9	183.4	31.1	39.2	1.6	*	70.3	185.5	
1967	*	-	0.1	12.3	12.2	22.2	34.2	0.9	*	64.8	198.4	
1968	-	-	*	4.9	4.1	27.2	30.2	1.1	*	61.7	209.3	
1969	-	-	0.1	2.2	4.6	38.5	24.4	1.3	*	43.6	212.2	
1970	-	-	0.2	2.2	20.7	51.8	22.4	0.8	*	44.2	229.4	
1971	*	-	0.1	1.6	29.6	53.8	19.9	0.7	-	53.5	248.1	
1972	*	-	0.1	1.3	26.1	47.9	18.1	0.6	*	54.2	274.2	
1973	-	-	0.2	0.9	50.2	42.7	16.2	0.6	-	48.2	342.7	
1974	-	-	0.1	1.1	26.0	39.5	15.7	0.6	*	29.9	352.0	
1975	*	-	0.1	1.1	35.7	31.6	14.0	0.8	-	18.0	357.7	
1976	-	-	0.1	0.8	67.3	29.0	14.8	0.7	*	11.9	382.1	
1977	-	-	0.1	0.8	15.2	29.3	14.1	0.6	-	12.9	401.8	
1978	-	-	0.2	0.5	87.0	23.6	13.7	0.9	*	12.3	398.3	
1979	-	-	0.2	1.1	9.4	22.0	11.4	0.9	-	13.6	396.0	
1980	*	-	0.1	0.4	2.7	19.4	12.6	0.8	*	12.6	377.4	
1981	-	-	0.3	0.3	0.4	18.3	10.0	1.0	-	11.4	350.9	*
1982	-	-	0.2	0.4	0.7	18.9	9.4	0.9	-	10.0	356.0	*
1983	-	-	0.1	0.5	0.1	19.5	8.6	1.0	-	8.0	372.1	0.2
1984	-	-	0.1	0.3	5.1	19.0	7.3	1.0	-	8.3	383.9	0.5
1985	-	-	0.1	0.6	0.7	16.4	5.9	1.2	-	7.2	368.8	0.9
1986	-	-	*	0.4	0.2	13.8	6.8	0.9	-	6.4	414.8	1.6
1987	-	-	*	0.6	0.5	17.5	5.9	1.2	*	6.8	503.8	2.4
1988	-	-	*	0.4	0.3	13.0	5.5	1.0	-	11.0	405.1	3.9
1989	-	-	0.1	0.5	3.9	11.3	5.0	0.8	-	17.4	362.6	5.5
1990	-	-	0.1	0.9	5.9	12.0	5.4	0.7	-	28.2	331.1	6.2
1991	-	-	0.1	0.4	0.7	12.0	4.9	0.8	-	37.9	290.6	[illegible].1

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.7
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Smallpox		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	529	21.9	272	11.2	9	0.4	869	35.9	208	8.6	342	14.1	2,018	83.4	2,500	103.3						
1901	502	20.4	312	12.7	27	1.1	645	26.2	163	6.6	79	3.2	2,152	87.5	2,548	103.6			88	3.6		
1902	504	20.2	277	11.1	42	1.7	608	24.3	289	11.6	238	9.5	2,088	83.6	2,462	98.5			114	4.6		
1903	686	27.0	200	7.9	29	1.1	606	23.9	383	15.1	176	6.9	2,155	84.9	2,562	101.0			130	5.2		
1904	515	20.0	210	8.1	26	1.0	641	24.9	148	5.7	194	7.5	2,306	89.5	2,761	107.2			101	4.0		
1905	478	18.3	123	4.7	74	2.8	636	24.3	131	5.0	123	4.7	2,288	87.5	2,732	104.5			89	3.5		
1906	472	17.8	227	8.6	3	*	721	27.2	469	17.7	251	9.5	2,303	86.8	2,737	103.1			89	3.4		
1907	421	15.6	159	5.9	8	0.3	594	22.1	223	8.3	256	9.5	2,338	86.8	2,728	101.3			94	3.6		
1908	343	12.6	194	7.1	11	0.4	687	25.1	305	11.2	121	4.4	2,249	82.3	2,706	99.0			118	4.5		
1909	395	14.3	275	9.9	4	*	653	23.6	217	7.8	270	9.7	2,237	80.7	2,629	94.9			127	4.8		
1910	495	17.6	297	10.6	121	4.3	654	23.3	318	11.3	251	8.9	2,273	80.9	2,756	98.1	52	1.9	65	2.3		
1911	473	16.3	208	7.2	7	0.2	551	19.0	254	8.8	200	6.9	2,284	78.9	2,766	95.5	55	1.9	104	3.6		
1912	465	15.6	186	6.2	3	*	534	17.9	252	8.5	118	4.0	2,289	76.8	2,744	92.0	48	1.7	90	3.1		
1913	676	22.0	283	9.2	5	*	538	17.5	292	9.5	258	8.4	2,243	73.1	2,703	88.1	43	1.5	136	4.6		
1914	507	16.1	177	5.6	2	*	400	12.7	304	9.6	180	5.7	2,325	73.7	2,799	88.8	41	1.4	160	5.3		
1915	354	10.9	107	3.3	5	*	353	10.9	236	7.3	101	3.1	2,527	78.0	2,986	92.2	36	1.2	163	5.3		
1916	507	15.2	177	5.3	2	*	424	12.8	228	6.9	363	10.9	2,573	77.4	3,070	92.3	141	4.6	206	6.7		
1917	851	24.9	340	10.0	9	0.3	386	11.3	360	10.6	259	7.6	2,779	81.5	3,310	97.0	44	1.4	224	7.1		
1918	686	19.6	181	5.2	18	0.5	337	9.6	496	14.2	270	7.7	3,059	87.5	3,612	103.3	58	1.8	290	9.1		
1919	764	21.3	179	5.0	10	0.3	272	7.6	172	4.8	183	5.1	2,620	73.1	3,127	87.3	80	2.2	299	8.2		
1920	888	24.2	305	8.3	14	0.4	297	8.1	511	13.9	436	11.9	2,645	72.1	3,149	85.8	30	0.8	314	8.4		
1921	954	25.2	334	8.8	12	0.3	285	7.5	316	8.3	58	1.5	2,285	60.4	2,736	72.3	100	2.6	226	5.9	14	0.4
1922	620	15.9	217	5.6	20	0.5	192	4.9	232	5.9	232	5.9	2,232	57.2	2,654	68.0	21	0.5	186	4.7	6	0.2
1923	675	16.8	304	7.6	13	0.3	202	5.0	323	8.0	258	6.4	2,410	59.9	2,837	70.6	18	0.5	262	6.8	5	*
1924	470	11.4	265	6.4	226	5.5	149	3.6	169	4.1	221	5.3	2,474	59.8	2,952	71.3	116	3.0	271	7.0	13	0.3
1925	358	8.4	208	4.9	22	0.5	157	3.7	260	6.1	69	1.6	2,410	56.6	2,830	66.5	31	0.7	282	6.6	27	0.6
1926	677	15.5	235	5.4	4	*	119	2.7	355	8.1	577	13.2	2,601	59.5	3,041	69.5	34	0.8	327	7.5	12	0.3
1927	516	11.5	168	3.7	-	-	94	2.1	201	4.5	67	1.5	2,514	56.0	2,952	65.7	69	1.5	305	6.8	16	0.4
1928	384	8.3	178	3.9	2	*	83	1.8	219	4.8	303	6.6	2,647	57.4	3,108	67.5	27	0.6	384	8.4	19	0.4
1929	498	10.5	145	3.1	9	0.2	81	1.7	255	5.4	146	3.1	2,685	56.8	3,140	66.5	50	1.1	397	8.4	19	0.4

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Smallpox		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	299	6.2	130	2.7	9	0.2	87	1.8	176	3.6	231	4.8	2,443	50.5	2,912	60.1	39	0.8	395	8.2	12	0.2
1931	172	3.5	122	2.5	4	*	73	1.5	190	3.9	28	0.6	2,263	46.3	2,660	54.5	108	2.2	361	7.4	3	*
1932	106	2.2	112	2.3	1	*	56	1.1	199	4.0	183	3.7	2,101	42.7	2,463	50.0	23	0.5	377	7.7	2	*
1933	112	2.3	157	3.2	-	-	50	1.0	153	3.1	111	2.2	1,996	40.2	2,348	47.3	5	*	327	6.6	7	0.1
1934	38	0.8	171	3.4	-	-	65	1.3	141	2.8	36	0.7	1,909	38.1	2,199	43.9	25	0.5	402	8.0	10	0.2
1935	58	1.1	98	1.9	-	-	34	0.7	132	2.6	184	3.6	1,741	34.5	2,044	40.5	32	0.6	393	7.8	3	*
1936	52	1.0	114	2.2	-	-	37	0.7	107	2.1	12	0.2	1,816	35.7	2,100	41.3	21	0.4	394	7.7	6	0.1
1937	72	1.4	148	2.9	1	*	29	0.6	132	2.6	11	0.2	1,860	36.2	2,119	41.3	51	1.0	401	7.8	8	0.2
1938	44	0.9	87	1.7	-	-	23	0.4	116	2.2	100	1.9	1,633	31.6	1,866	36.1	10	0.2	401	7.8	8	0.2
1939	25	0.5	69	1.3	-	-	25	0.5	76	1.5	29	0.6	1,651	31.7	1,881	36.1	40	0.8	389	7.5	4	*
1940	20	0.4	41	0.8	1	*	11	0.2	59	1.1	19	0.4	1,547	29.4	1,752	33.3	72	1.4	591	11.2	3	*
1941	18	0.3	32	0.6	1	*	14	0.3	91	1.7	65	1.2	1,532	28.2	1,723	31.7	18	0.3	537	9.9	1	*
1942	24	0.4	23	0.4	-	-	5	*	72	1.3	8	0.1	1,630	29.4	1,827	33.0	10	0.2	559	10.1	7	0.1
1943	21	0.4	11	0.2	-	-	9	0.2	101	1.9	89	1.7	1,588	29.5	1,802	33.5	27	0.5	579	10.8	3	*
1944	32	0.6	7	0.1	1	*	7	0.1	33	0.6	49	0.9	1,544	28.7	1,748	32.5	45	0.8	543	10.1	2	*
1945	46	0.8	9	0.2	-	-	3	*	36	0.7	10	0.2	1,591	29.3	1,758	32.3	20	0.4	527	9.7	2	*
1946	27	0.5	3	*	-	-	6	0.1	44	0.8	47	0.8	1,645	28.8	1,843	32.3	89	1.6	547	9.6	-	-
1947	23	0.4	6	0.1	-	-	5	*	63	1.0	5	*	1,483	24.4	1,643	27.1	29	0.5	502	8.3	3	*
1948	8	0.1	1	*	-	-	4	*	9	0.1	43	0.7	1,395	22.5	1,561	25.2	54	0.9	512	8.3	-	-
1949	11	0.2	4	*	-	-	1	*	22	0.3	33	0.5	1,254	19.7	1,400	22.0	216	3.4	455	7.2	-	-
1950	2	*	1	*	-	-	5	*	28	0.4	28	0.4	1,134	17.8	1,270	19.9	128	2.0	325	5.1	1	*
1951	6	0.1	-	-	-	-	1	*	21	0.3	11	0.2	1,049	16.0	1,154	17.6	67	1.0	299	4.6	1	*
1952	2	*	-	-	-	-	-	-	8	0.1	17	0.3	689	10.3	775	11.6	213	3.2	174	2.6	2	*
1953	2	*	1	*	-	-	-	-	11	0.2	16	0.2	536	7.8	607	8.9	108	1.6	182	2.7	1	*
1954	3	*	3	*	-	-	-	-	17	0.2	17	0.2	471	6.7	530	7.5	89	1.3	139	2.0	2	*
1955	1	*	1	*	-	-	1	*	8	0.1	10	0.1	435	6.0	477	6.6	32	0.4	115	1.6	1	*
1956	6	0.1	3	*	-	-	-	-	6	0.1	26	0.3	426	5.7	466	6.2	22	0.3	114	1.5	4	*
1957	1	*	-	-	-	-	-	-	6	0.1	23	0.3	403	5.2	442	5.7	15	0.2	105	1.3	4	*
1958	-	-	-	-	-	-	-	-	1	*	18	0.2	357	4.5	395	5.0	37	0.5	84	1.1	8	0.1
1959	1	*	2	*	-	-	1	*	5	*	11	0.1	335	4.2	370	4.6	17	0.2	84	1.1	4	*

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1991 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Smallpox		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1960	2	•	1	•	-	-	-	-	1	•	17	0.2	364	4.7	390	5.0	4	•	79	1.0	7	0.1
1961	1	•	1	•	-	-	-	-	2	•	13	0.2	307	3.9	332	4.2	-	-	71	0.9	7	0.1
1962	2	•	1	•	-	-	-	-	2	•	8	0.1	307	3.9	331	4.2	2	•	94	1.2	3	•
1963	-	-	-	-	-	-	-	-	-	-	27	0.3	276	3.4	299	3.7	1	•	72	0.9	1	•
1964	-	-	-	-	-	-	-	-	2	•	11	0.1	288	3.6	315	3.9	1	•	66	0.8	3	•
1965	-	-	-	-	-	-	-	-	-	-	5	•	261	3.2	285	3.5	-	-	65	0.8	2	•
1966	1	•	-	-	-	-	-	-	-	-	7	0.1	284	3.4	301	3.6	-	-	63	0.8	-	-
1967	-	-	-	-	-	-	-	-	-	-	3	•	206	2.4	226	3.6	-	-	44	0.5	1	•
1968	-	-	1	•	-	-	-	-	-	-	-	-	203	2.3	262	3.0	2	•	29	0.3	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	147	1.7	201	2.3	-	-	26	0.3	1	•
1970	-	-	2	•	-	-	-	-	-	-	1	•	134	1.5	180	2.0	-	-	17	0.2	2	•
1971	-	-	4	•	-	-	-	-	-	-	-	-	122	1.4	173	1.9	-	-	18	0.2	-	-
1972	-	-	1	•	-	-	1	•	-	-	-	-	111	1.2	157	1.7	1	•	12	0.1	-	-
1973	-	-	-	-	-	-	-	-	1	•	2	•	101	1.1	138	1.5	3	•	12	0.1	-	-
1974	-	-	1	•	-	-	-	-	2	•	-	-	109	1.2	142	1.6	3	•	11	0.1	-	-
1975	-	-	-	-	-	-	-	-	1	•	1	•	81	0.9	110	1.2	5	•	10	0.1	1	•
1976	-	-	-	-	-	-	-	-	-	-	-	-	80	0.9	102	1.1	6	0.1	11	0.1	-	-
1977	-	-	1	•	-	-	-	-	-	-	-	-	67	0.7	97	1.1	6	0.1	3	•	-	-
1978	-	-	-	-	-	-	-	-	1	•	1	•	60	0.7	80	0.9	2	•	5	•	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	47	0.5	62	0.7	2	•	9	0.1	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	51	0.6	61	0.7	-	-	1	•	1	•
1981	-	-	-	-	-	-	1	•	-	-	-	-	41	0.4	53	0.6	-	-	4	•	1	•
1982	-	-	-	-	-	-	-	-	-	-	1	•	30	0.3	41	0.4	-	-	-	-	-	-
1983	-	-	1	•	-	-	-	-	-	-	1	•	28	0.3	39	0.4	-	-	3	•	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	47	0.5	59	0.7	-	-	2	•	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	37	0.4	46	0.5	-	-	3	•	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	36	0.4	44	0.5	-	-	2	•	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	39	0.4	46	0.5	-	-	2	•	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	31	0.3	32	0.3	10	0.1	3	•	-	-
1990	-	-	1	•	-	-	-	-	-	-	-	-	28	0.3	36	0.3	-	-	3	•	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	23	0.2	41	0.4	-	-	1	•	-	-

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.8
Number of Deaths and Death Rates[1] by Specified Causes

Michigan Residents, 1900 - 1991

(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	2,836	117.1	1,460	60.3	2,136	88.2	1,740	71.9			224	9.3	2,388	98.6				
1901	3,040	123.6	1,484	60.3	2,147	87.3	1,901	77.3			264	10.7	2,901	117.9				
1902	3,302	132.1	1,483	59.3	2,097	83.9	1,796	71.9			289	11.6	2,637	105.5				
1903	3,702	145.9	1,694	66.8	2,321	91.5	2,017	79.5			265	10.4	2,607	102.7				
1904	3,981	154.5	1,728	67.1	2,431	94.3	2,035	79.0			298	11.6	2,646	102.7				
1905	3,715	142.0	1,693	64.7	2,405	91.9	2,034	77.8			267	10.2	2,417	92.4				
1906	3,933	148.2	1,736	65.4	2,554	96.2	2,126	80.1			311	11.7	2,621	98.7				
1907	4,269	158.5	1,747	64.9	2,690	99.9	2,209	82.0			352	13.1	3,018	112.0				
1908	4,202	153.8	1,921	70.3	2,630	96.3	2,036	74.5			359	13.1	2,313	84.7				
1909	4,354	157.1	1,948	70.3	2,739	98.8	1,903	68.7			374	13.5	2,265	81.7				
1910	4,581	163.0	2,105	74.9	3,091	110.0	2,158	76.8	49	1.7	398	14.2	2,785	99.1	282	10.0		
1911	4,639	160.2	2,142	74.0	2,916	100.7	2,121	73.2	44	1.5	373	12.9	2,763	95.4				
1912	5,324	178.5	2,291	76.8	2,707	90.8	2,005	67.2	75	2.5	448	15.0	2,796	93.8				
1913	4,908	160.0	2,388	77.8	2,834	92.4	2,333	76.1	132	4.3	483	15.7	3,082	100.5				
1914	5,124	162.5	2,414	76.6	2,993	94.9	2,108	66.8	120	3.8	503	16.0	2,909	92.2				
1915	5,538	171.0	2,567	79.2	3,384	104.5	2,219	68.5	190	5.9	498	15.4	3,229	99.7				
1916	5,819	175.0	2,710	81.5	3,559	107.0	2,853	85.8	257	7.7	500	15.0	3,698	111.2				
1917	6,103	178.9	2,765	81.1	3,703	108.6	2,925	85.8	335	9.8	569	16.7	4,455	130.6				
1918	6,091	174.2	2,931	83.8	3,493	99.9	2,599	74.3	279	8.0	591	16.9	7,238	207.0				
1919	5,651	157.7	2,990	83.5	3,483	97.2	2,612	72.9	328	9.2	559	15.6	4,081	113.9				
1920	6,732	183.5	3,158	86.1	3,876	105.7	2,646	72.1	397	10.8	577	15.7	5,794	157.9				
1921	6,176	163.1	3,373	89.1	3,931	103.8	2,476	65.4	403	10.6	586	15.5	2,849	75.3	261	6.9		
1922	6,897	176.7	3,481	89.2	4,041	103.5	2,475	63.4	529	13.6	650	16.7	3,728	95.5	267	6.8		
1923	7,266	180.7	3,545	88.2	4,420	109.9	2,826	70.3	677	16.8	635	15.8	4,719	117.4	251	6.2		
1924	6,985	168.8	3,824	92.4	4,241	102.5	3,090	74.7	1,001	24.2	661	16.0	3,332	80.5	256	6.2		
1925	7,540	177.2	3,858	90.7	4,623	108.6	3,278	77.0	1,103	25.9	746	17.5	3,294	77.4	319	7.5		
1926	8,281	189.4	4,087	93.5	4,663	106.6	3,557	81.3	1,221	27.9	743	17.0	4,440	101.5	326	7.5		
1927	8,780	195.5	4,264	95.0	4,378	97.5	3,634	80.9	1,389	30.9	819	18.2	3,543	78.9	340	7.6		
1928	9,786	212.4	4,381	95.1	4,718	102.4	3,704	80.4	1,429	31.0	905	19.6	4,518	98.1	373	8.1		
1929	10,185	215.6	4,571	96.7	4,694	99.3	3,913	82.8	1,552	32.8	935	19.8	4,216	89.2	361	7.6		

[1] 1990 Census population is being used to calculate 1991 rates.
[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.
[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.
[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.8 (continued)
Number of Deaths and Death Rates[1] by Specified Causes
Michigan Residents, 1900 - 1991
(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	9,947	205.4	4,572	94.4	4,533	93.6	3,805	78.6	1,572	32.5	880	18.2	3,321	68.6	329	6.8	1,047	21.6
1931	10,206	209.0	4,763	97.5	4,388	89.8	3,630	74.3	1,516	31.0	950	19.5	2,883	59.0	365	7.5	1,005	20.6
1932	11,162	226.6	4,935	100.2	4,518	91.7	3,179	64.5	1,229	25.0	1,121	22.8	3,238	65.7	386	7.8	948	19.2
1933	11,509	231.7	5,055	101.8	4,318	86.9	3,304	66.5	1,278	25.7	1,103	22.2	2,756	55.5	354	7.1	966	19.5
1934	11,824	236.1	5,370	107.2	4,485	89.6	3,774	75.4	1,511	30.2	1,100	22.0	3,466	69.2	378	7.5	914	18.3
1935	12,456	246.7	5,399	106.9	4,420	87.5	3,771	74.7	1,676	33.2	1,228	24.3	3,801	75.3	368	7.3	897	17.8
1936	13,374	262.7	5,752	113.0	4,705	92.4	5,246	103.1	1,924	37.8	1,266	24.9	4,096	80.5	446	8.8	997	19.6
1937	13,233	257.8	5,732	111.7	4,378	85.3	4,580	89.2	2,187	42.6	1,255	24.5	4,098	79.8	430	8.4	1,168	22.8
1938	13,887	268.4	6,059	117.1	4,543	87.8	3,608	69.7	1,490	28.8	1,283	24.8	2,869	55.5	424	8.2	869	16.8
1939	14,898	285.7	6,296	120.7	4,415	84.7	3,761	72.1	1,553	29.8	1,360	26.1	2,803	53.8	387	7.4	918	17.6
1940	15,480	294.5	6,513	123.9	4,690	89.2	3,961	75.4	1,743	33.2	1,408	26.8	2,478	47.1	468	8.9	941	17.9
1941	15,761	289.8	6,551	120.5	4,698	86.4	4,450	81.8	2,156	39.6	1,382	25.4	2,235	41.1	450	8.3	906	16.7
1942	16,016	289.2	6,646	120.0	4,841	87.4	3,685	66.5	1,368	24.7	1,448	26.1	2,349	42.4	535	9.7	1,015	18.3
1943	17,816	331.3	7,127	132.5	5,311	98.8	3,480	64.7	1,025	19.1	1,535	28.5	2,931	54.5	518	9.6	1,092	20.3
1944	17,004	316.2	7,277	135.3	4,954	92.1	3,350	62.3	1,103	20.5	1,554	28.9	2,369	44.1	471	8.8	980	18.2
1945	17,421	320.5	7,486	137.7	5,295	97.4	3,432	63.1	1,199	22.1	1,561	28.7	1,932	35.5	535	9.8	970	17.8
1946	17,691	309.9	7,845	137.4	5,224	91.5	3,776	66.1	1,506	26.4	1,530	26.8	1,891	33.1	554	9.7	933	16.3
1947	18,412	303.4	8,188	134.9	5,426	89.4	3,848	63.4	1,499	24.7	1,618	26.7	2,089	34.4	697	11.5	1,031	17.0
1948	18,726	302.3	8,336	1346.0	5,272	85.1	4,017	64.8	1,545	24.9	1,771	28.6	1,853	29.9	771	12.4	1,085	17.5
1949	19,137	301.3	8,697	136.9	5,438	85.6	3,838	60.4	1,493	23.5	1,884	29.7	1,885	29.7	730	11.5	1,135	17.9
1950	20,521	322.1	8,685	136.3	6,376	100.1	3,783	59.4	1,680	26.4	1,438	22.6	1,358	21.3	616	9.7	1,296	20.3
1951	21,118	322.6	9,187	140.4	6,579	100.5	3,916	59.8	1,806	27.6	1,374	21.0	1,619	24.7	569	8.7	1,312	20.0
1952	21,247	316.8	9,256	138.0	6,521	97.2	3,901	58.2	1,815	27.1	1,339	20.0	1,571	23.4	599	8.9	1,294	19.3
1953	22,425	327.3	9,904	144.5	7,045	102.8	4,375	63.8	2,051	29.9	1,419	20.7	1,538	22.4	715	10.4	1,270	18.5
1954	22,362	318.4	10,105	143.9	6,964	99.1	3,948	56.2	1,916	27.3	1,469	20.9	1,380	19.6	677	9.6	1,170	16.7
1955	23,440	323.9	10,297	142.3	7,362	101.7	4,213	58.2	2,129	29.4	1,415	19.6	1,538	21.3	805	11.1	1,237	17.1
1956	24,661	328.1	10,489	139.6	7,114	94.7	3,925	52.2	1,826	24.3	1,443	19.2	1,723	22.9	788	10.5	1,251	16.6
1957	25,369	325.1	10,810	138.5	7,632	97.8	3,643	46.7	1,680	21.5	1,510	19.4	2,045	26.2	861	11.0	1,248	16.0
1958	25,215	320.6	10,946	139.2	7,547	95.9	3,306	42.0	1,466	18.6	1,595	20.3	2,076	26.4	818	10.4	1,300	16.5
1959	25,323	318.1	11,113	139.6	7,700	96.7	3,666	46.1	1,587	19.9	1,715	21.5	1,810	22.7	815	10.2	1,403	17.6

[1] 1990 Census population is being used to calculate 1991 rates.
[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.
[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.
[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.8 (continued)
Number of Deaths and Death Rates[1] by Specified Causes
Michigan Residents, 1900 - 1991
(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1960	25,728	328.9	11,331	144.8	7,682	98.2	3,688	47.1	1,710	21.9	1,784	22.8	2,002	25.6	840	10.7	1,352	17.3
1961	25,519	322.9	11,476	145.2	7,745	98.0	3,692	46.7	1,656	21.0	1,778	22.5	1,692	21.4	858	10.9	1,448	18.3
1962	27,226	342.9	11,752	148.0	7,783	98.0	3,758	47.3	1,668	21.0	1,908	24.0	1,824	23.0	859	10.8	1,477	18.6
1963	27,483	342.3	12,078	150.4	8,168	101.7	4,033	50.2	2,005	25.0	2,049	25.5	1,995	24.8	958	11.9	1,652	20.6
1964	27,496	339.5	12,087	149.2	7,940	98.0	4,416	54.5	2,286	28.2	2,055	25.4	1,714	21.2	995	12.3	1,559	19.2
1965	28,134	343.1	12,419	151.5	7,769	94.8	4,494	54.8	2,271	27.7	2,153	26.3	1,987	24.2	1,068	13.0	1,726	21.1
1966	28,277	340.1	12,506	150.4	7,732	93.0	4,737	57.0	2,407	29.0	2,243	27.0	2,026	24.4	1,152	13.9	1,745	21.0
1967	28,757	333.8	13,030	151.2	7,846	91.1	4,519	52.4	2,265	26.3	2,182	25.3	1,973	22.9	1,240	14.4	1,730	20.1
1968	29,680	342.1	13,292	153.2	7,913	91.2	4,603	53.1	2,466	28.4	2,298	26.5	2,341	27.0	1,259	14.5	1,262	14.5
1969	29,396	336.6	13,328	152.6	7,706	88.2	4,766	54.6	2,579	29.5	2,188	25.1	2,229	25.5	1,430	16.4	1,289	14.8
1970	29,204	329.1	13,551	152.7	7,691	86.7	4,428	49.9	2,309	26.0	2,180	24.6	2,004	22.6	1,558	17.6	1,174	13.2
1971	30,095	335.4	13,594	151.5	7,826	87.2	4,426	49.3	2,274	25.3	2,103	23.4	1,981	22.1	1,657	18.5	1,187	13.2
1972	30,865	342.0	14,045	155.6	7,999	88.6	4,566	50.6	2,450	27.1	2,222	24.6	2,009	22.3	1,778	19.7	1,153	12.8
1973	29,944	330.1	14,220	156.7	7,987	88.0	4,630	51.0	2,389	26.3	2,074	22.9	1,958	21.6	1,711	18.9	1,142	12.6
1974	29,220	320.8	14,241	156.3	7,645	83.9	4,211	46.2	1,929	21.2	1,940	21.3	1,637	18.0	1,650	18.1	1,187	13.0
1975	28,298	310.7	14,445	158.6	7,262	79.7	4,002	43.9	1,841	20.2	1,819	20.0	1,690	18.6	1,574	17.3	1,119	12.3
1976	29,233	320.6	14,880	163.2	7,354	80.7	3,912	42.9	1,993	21.9	1,719	18.9	1,812	19.9	1,486	16.3	1,207	13.2
1977	28,895	315.6	15,125	165.2	6,818	74.5	3,945	43.1	1,993	21.8	1,615	17.6	1,639	17.9	1,356	14.8	1,164	12.7
1978	29,406	319.6	15,249	165.7	6,520	70.9	3,970	43.1	2,138	23.2	1,551	16.9	1,828	19.9	1,351	14.7	1,146	12.5
1979	29,296	316.7	15,409	166.6	6,067	65.6	3,839	41.5	1,967	21.3	1,449	15.7	1,454	15.7	1,367	14.8	1,173	12.7
1980	29,790	321.6	15,828	170.9	6,164	66.6	3,627	39.2	1,880	20.3	1,467	15.8	1,712	18.5	1,362	14.7	1,254	13.5
1981	30,172	325.5	16,142	174.1	6,121	66.0	3,390	36.6	1,727	18.6	1,487	16.0	1,644	17.7	1,253	13.5	1,270	13.7
1982	30,099	326.2	16,566	179.5	5,839	63.3	3,113	33.7	1,555	16.9	1,347	14.6	1,665	18.0	1,244	13.5	1,284	13.9
1983	30,412	332.2	16,785	183.3	5,721	62.5	2,947	32.2	1,419	15.5	1,470	16.1	2,007	21.9	1,250	13.7	1,269	13.9
1984	30,100	331.7	16,907	186.3	5,631	62.1	3,049	33.6	1,630	18.0	1,476	16.3	2,018	22.2	1,194	13.2	1,142	12.6
1985	30,618	336.9	17,281	190.1	5,528	60.8	3,228	35.5	1,676	18.4	1,387	15.3	2,193	24.1	1,256	13.8	1,173	12.9
1986	31,270	342.0	17,321	189.4	5,421	59.3	3,202	35.0	1,736	19.0	1,494	16.3	2,513	27.5	1,120	12.2	1,214	13.3
1987	30,521	331.8	17,669	192.1	5,481	59.6	3,143	34.2	1,725	18.8	1,479	16.1	2,377	25.8	1,099	11.9	1,168	12.7
1988	30,218	327.0	17,890	193.6	5,237	56.7	3,237	35.0	1,806	19.5	1,522	16.5	2,626	28.4	1,080	11.7	1,187	12.8
1989	28,031	302.3	18,264	196.9	5,173	55.8	3,228	34.8	1,750	18.9	2,052	22.1	2,633	28.4	1,170	12.6	832	9.0
1990	27,527	296.1	18,413	198.1	5,090	54.8	3,137	33.7	1,669	18.0	2,009	21.6	2,863	30.8	1,123	12.1	807	8.7
1991	27,517	296.0	19,204	206.6	5,165	55.6	3,011	32.4	1,494	16.1	2,113	22.7	2,773	29.8	1,060	11.4	823	8.9

[1] 1990 Census population is being used to calculate 1991 rates.

[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.

[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.

[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.

[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.

[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.

[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.9
Selected Vital Statistics by County
Michigan Residents, 1991

Area	Population Estimate[1]	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[2]	Divorces[2]
Michigan	9,295,297	149,478	11,706	79,738	1,554	1,003	1,620	775	72,747	40,103
Alcona	10,145	99	4	156	-	-	1	1	82	32
Alger	8,972	93	3	113	-	-	1	1	64	43
Allegan	90,509	1,406	77	708	6	3	11	8	715	421
Alpena	30,605	360	23	302	2	2	2	1	249	166
Antrim	18,185	241	13	202	1	1	2	2	165	71
Arenac	14,931	224	14	186	3	3	5	2	109	82
Baraga	7,954	108	12	110	-	-	-	-	61	25
Barry	50,057	728	25	364	3	2	4	2	416	250
Bay	111,723	1,597	98	1,009	19	14	23	12	904	438
Benzie	12,200	164	6	150	2	-	-	-	118	64
Berrien	161,378	2,337	199	1,615	33	19	30	14	1,313	728
Branch	41,502	549	39	393	6	3	6	3	369	231
Calhoun	135,982	2,142	184	1,368	19	10	14	7	1,201	795
Cass	49,477	434	21	410	4	2	6	5	374	265
Charlevoix	21,468	305	12	183	2	1	1	-	194	105
Cheboygan	21,398	269	13	236	3	1	7	6	181	106
Chippewa	34,604	393	14	254	1	1	3	2	281	108
Clare	24,952	383	30	315	2	1	5	4	246	114
Clinton	57,883	832	45	375	4	3	10	7	464	266
Crawford	12,260	203	15	123	2	1	1	-	109	51
Delta	37,780	468	26	384	6	4	4	2	347	165
Dickinson	26,831	359	19	318	4	2	1	-	250	121
Eaton	92,879	1,172	63	629	7	3	10	7	770	442
Emmet	25,040	395	19	239	4	4	2	-	283	149
Genesee	430,459	7,513	691	3,590	90	59	76	29	3,622	1,614
Gladwin	21,896	284	16	243	2	2	1	-	176	110
Gogebic	18,052	176	9	285	1	1	2	1	145	39
Grand Traverse	64,273	953	74	513	9	7	7	1	726	365
Gratiot	38,982	612	44	366	5	5	11	7	309	137
Hillsdale	43,431	596	24	359	6	5	5	1	339	232
Houghton	35,446	438	17	396	2	1	3	3	236	106
Huron	34,951	414	18	413	5	3	4	2	255	124
Ingham	281,912	4,517	323	1,720	32	20	47	32	2,594	1,411
Ionia	57,024	850	48	416	14	9	10	4	479	253
Iosco	30,209	543	24	323	2	1	1	-	311	185
Iron	13,175	125	8	213	2	1	3	2	100	50
Isabella	54,624	702	37	327	5	2	5	3	415	195
Jackson	149,756	2,262	156	1,380	16	11	17	8	1,281	730
Kalamazoo	223,411	3,409	232	1,602	39	22	48	27	2,053	1,053
Kalkaska	13,497	213	16	119	1	-	-	-	117	80
Kent	500,631	9,432	601	3,762	98	56	110	60	4,901	2,358
Keweenaw	1,701	16	3	30	-	-	-	-	13	8

[1] 1990 Census population.

[2] By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.9 (continued)
Selected Vital Statistics by County
Michigan Residents, 1991

Area	Population Estimate[1]	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[2]	Divorces[2]
Lake	8,583	109	4	136	3	1	2	1	59	38
Lapeer	74,768	1,124	67	529	16	15	17	4	619	343
Leelanau	16,527	209	16	161	4	3	3	1	142	68
Lenawee	91,476	1,362	102	733	8	5	11	6	665	424
Livingston	115,645	1,636	88	675	8	7	10	5	865	542
Luce	5,763	58	9	65	-	-	-	-	65	21
Mackinac	10,674	123	3	123	-	-	1	1	210	35
Macomb	717,400	10,288	610	5,966	69	46	75	35	6,353	3,010
Manistee	21,265	230	14	269	-	-	1	1	147	88
Marquette	70,887	955	51	546	6	5	8	5	571	333
Mason	25,537	355	26	289	1	-	1	1	243	162
Mecosta	37,308	455	23	337	10	3	6	3	262	131
Menominee	24,920	290	18	302	4	2	3	2	224	96
Midland	75,651	1,180	71	487	6	2	10	9	673	363
Missaukee	12,147	158	13	109	4	1	2	2	101	30
Monroe	133,600	1,880	128	1,000	9	6	9	3	934	598
Montcalm	53,059	842	53	483	5	2	3	1	498	271
Montmorency	8,936	86	3	131	1	1	1	-	57	30
Muskegon	158,983	2,644	210	1,373	38	21	33	15	1,399	843
Newaygo	38,202	682	50	358	4	3	7	6	361	221
Oakland	1,083,592	16,555	1,020	7,932	128	97	165	86	9,298	5,120
Oceana	22,454	332	22	215	4	2	2	1	220	112
Ogemaw	18,681	280	14	269	-	-	4	4	154	78
Ontonagon	8,854	94	2	134	1	-	1	1	70	35
Osceola	20,146	314	16	215	1	1	2	1	183	93
Oscoda	7,842	90	7	106	2	-	-	-	68	32
Otsego	17,957	280	12	177	1	-	-	-	160	85
Ottawa	187,768	3,306	134	1,172	21	14	25	15	1,546	475
Presque Isle	13,743	129	4	133	-	-	1	1	86	37
Roscommon	19,776	239	17	290	4	1	3	2	144	90
Saginaw	211,946	3,664	340	1,882	42	33	53	23	871	635
St Clair	145,607	2,077	120	1,246	17	5	6	2	1,262	731
St Joseph	58,913	868	60	559	8	5	7	5	494	356
Sanilac	39,928	557	28	383	4	2	6	4	306	201
Schoolcraft	8,302	107	2	103	2	1	-	-	52	19
Shiawassee	69,770	1,009	58	558	9	3	8	6	630	262
Tuscola	55,498	791	50	501	8	5	6	1	444	212
Van Buren	70,060	1,156	62	655	11	6	12	8	580	347
Washtenaw	282,937	4,221	276	1,485	36	24	44	23	2,244	1,294
Wayne	2,111,687	40,001	4,567	21,186	595	395	571	224	11,814	7,790
Wexford	26,360	413	18	263	2	1	1	-	336	164
Co. Not Stated	-	13	3	3	-	-	1	1	-	-

[1] 1990 Census population.
[2] By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.10
Selected Vital Statistics Rates[1] by County
Michigan Residents, 1991

Area	Live Births	Low Weight Live Births[2]	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[3]	Divorces[3]
Michigan	16.1	78.3	8.6	10.4	6.7	10.8	5.2	15.7	8.6
Alcona	9.8	*	15.4	-	-	*	*	16.2	6.3
Alger	10.4	*	12.6	-	-	*	*	14.3	9.6
Allegan	15.5	54.8	7.8	4.3	*	7.8	5.7	15.8	9.3
Alpena	11.8	63.9	9.9	*	*	*	*	16.3	10.8
Antrim	13.3	53.9	11.1	*	*	*	*	18.1	7.8
Arenac	15.0	62.5	12.5	*	*	*	*	14.6	11.0
Baraga	13.6	111.1	13.8	-	-	-	-	15.3	6.3
Barry	14.5	34.3	7.3	*	*	*	*	16.6	10.0
Bay	14.3	61.4	9.0	11.9	8.8	14.3	7.5	16.2	7.8
Benzie	13.4	36.6	12.3	*	-	-	-	19.3	10.5
Berrien	14.5	85.2	10.0	14.1	8.1	12.8	6.0	16.3	9.0
Branch	13.2	71.0	9.5	10.9	*	10.9	*	17.8	11.1
Calhoun	15.8	85.9	10.1	8.9	4.7	6.5	3.3	17.7	11.7
Cass	8.8	48.4	8.3	*	*	13.7	*	15.1	10.7
Charlevoix	14.2	39.3	8.5	*	*	*	-	18.1	9.8
Cheboygan	12.6	48.3	11.0	*	*	25.5	21.8	16.9	9.9
Chippewa	11.4	35.6	7.3	*	*	*	*	16.2	6.2
Clare	15.3	78.3	12.6	*	*	*	*	19.7	9.1
Clinton	14.4	54.1	6.5	*	*	11.9	8.3	16.0	9.2
Crawford	16.6	73.9	10.0	*	*	*	-	17.8	8.3
Delta	12.4	55.6	10.2	12.8	*	*	*	18.4	8.7
Dickinson	13.4	52.9	11.9	*	*	*	-	18.6	9.0
Eaton	12.6	53.8	6.8	6.0	*	8.5	5.9	16.6	9.5
Emmet	15.8	48.1	9.5	*	*	*	-	22.6	11.9
Genesee	17.5	92.0	8.3	12.0	7.9	10.1	3.8	16.8	7.5
Gladwin	13.0	56.3	11.1	*	*	*	-	16.1	10.0
Gogebic	9.7	51.1	15.8	*	*	*	*	16.1	4.3
Grand Traverse	14.8	77.6	8.0	9.4	7.3	7.3	*	22.6	11.4
Gratiot	15.7	71.9	9.4	*	*	17.8	11.3	15.9	7.0
Hillsdale	13.7	40.3	8.3	10.1	*	*	*	15.6	10.7
Houghton	12.4	38.8	11.2	*	*	*	*	13.3	6.0
Huron	11.8	43.5	11.8	*	*	*	*	14.6	7.1
Ingham	16.0	71.5	6.1	7.1	4.4	10.3	7.0	18.4	10.0
Ionia	14.9	56.5	7.3	16.5	10.6	11.7	*	16.8	8.9
Iosco	18.0	44.2	10.7	*	*	*	-	20.6	12.2
Iron	9.5	64.0	16.2	*	*	*	*	15.2	7.6
Isabella	12.9	52.7	6.0	*	*	*	*	15.2	7.1
Jackson	15.1	69.0	9.2	7.1	4.9	7.5	3.5	17.1	9.7
Kalamazoo	15.3	68.1	7.2	11.4	6.5	14.0	7.9	18.4	9.4
Kalkaska	15.8	75.1	8.8	*	-	-	-	17.3	11.9
Kent	18.8	63.7	7.5	10.4	5.9	11.6	6.3	19.6	9.4
Keweenaw	9.4	*	17.6	-	-	-	-	15.3	9.4

[1] 1990 Census population is being used to calculate 1991 rates.
[2] Ratio per 1,000 live births.
[3] By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.10 (continued)
Selected Vital Statistics Rates[1] by County
Michigan Residents, 1991

Area	Live Births	Low Weight Live Births[2]	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[3]	Divorces[3]
Lake	12.7	*	15.8	*	*	*	*	13.7	8.9
Lapeer	15.0	59.6	7.1	14.2	13.3	15.1	*	16.6	9.2
Leelanau	12.6	76.6	9.7	*	*	*	*	17.2	8.2
Lenawee	14.9	74.9	8.0	5.9	*	8.0	4.4	14.5	9.3
Livingston	14.1	53.8	5.8	4.9	4.3	6.1	*	15.0	9.4
Luce	10.1	155.2	11.3	-	-	-	-	22.6	7.3
Mackinac	11.5	*	11.5	-	-	*	*	39.3	6.6
Macomb	14.3	59.3	8.3	6.7	4.5	7.3	3.4	17.7	8.4
Manistee	10.8	60.9	12.6	-	-	*	*	13.8	8.3
Marquette	13.5	53.4	7.7	6.3	*	8.3	*	16.1	9.4
Mason	13.9	73.2	11.3	*	-	*	*	19.0	12.7
Mecosta	12.2	50.5	9.0	22.0	*	13.1	*	14.0	7.0
Menominee	11.6	62.1	12.1	*	*	*	*	18.0	7.7
Midland	15.6	60.2	6.4	5.1	*	8.4	7.6	17.8	9.6
Missaukee	13.0	82.3	9.0	*	*	*	*	16.6	4.9
Monroe	14.1	68.1	7.5	4.8	3.2	4.8	*	14.0	9.0
Montcalm	15.9	62.9	9.1	*	*	*	*	18.8	10.2
Montmorency	9.6	*	14.7	*	*	*	-	12.8	6.7
Muskegon	16.6	79.4	8.6	14.4	7.9	12.4	5.6	17.6	10.6
Newaygo	17.9	73.3	9.4	*	*	10.2	8.7	18.9	11.6
Oakland	15.3	61.6	7.3	7.7	5.9	9.9	5.2	17.2	9.5
Oceana	14.8	66.3	9.6	*	*	*	*	19.6	10.0
Ogemaw	15.0	50.0	14.4	-	-	*	*	16.5	8.4
Ontonagon	10.6	*	15.1	*	-	*	*	15.8	7.9
Osceola	15.6	51.0	10.7	*	*	*	*	18.2	9.2
Oscoda	11.5	77.8	13.5	*	-	-	-	17.3	8.2
Otsego	15.6	42.9	9.9	*	-	-	-	17.8	9.5
Ottawa	17.6	40.5	6.2	6.4	4.2	7.5	4.5	16.5	5.1
Presque Isle	9.4	*	9.7	-	-	*	*	12.5	5.4
Roscommon	12.1	71.1	14.7	*	*	*	*	14.6	9.1
Saginaw	17.3	92.8	8.9	11.5	9.0	14.4	6.2	8.2	6.0
St Clair	14.3	57.8	8.6	8.2	*	2.9	*	17.3	10.0
St Joseph	14.7	69.1	9.5	9.2	*	8.0	*	16.8	12.1
Sanilac	14.0	50.3	9.6	*	*	10.7	*	15.3	10.1
Schoolcraft	12.9	*	12.4	*	*	-	-	12.5	4.6
Shiawassee	14.5	57.5	8.0	8.9	*	7.9	5.9	18.1	7.5
Tuscola	14.3	63.2	9.0	10.1	*	7.6	*	16.0	7.6
Van Buren	16.5	53.6	9.3	9.5	5.2	10.3	6.9	16.6	9.9
Washtenaw	14.9	65.4	5.2	8.5	5.7	10.4	5.4	15.9	9.1
Wayne	18.9	114.2	10.0	14.9	9.9	14.2	5.6	11.2	7.4
Wexford	15.7	43.6	10.0	*	*	*	-	25.5	12.4

[1] 1990 Census population is being used to calculate 1991 rates.
[2] Ratio per 1,000 live births.
[3] By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.11
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1991

Area	Medical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Michigan	31,279	20.9	41,882	28.0	8,738	5.8	32,155	21.5	4,144	2.8	2,495	1.7	10,863	7.3	29,713	19.9	7,159	4.8
Alcona	25	25.3	49	49.5	5	5.1	32	32.3	-	-	1	1.0	4	4.0	16	16.2	6	6.1
Alger	17	18.3	26	28.0	5	5.4	26	28.0	4	4.3	-	-	5	5.4	18	19.4	4	4.3
Allegan	242	17.2	411	29.2	69	4.9	287	20.4	29	2.1	15	1.1	54	3.8	271	19.3	61	4.3
Alpena	93	25.8	160	44.4	16	4.4	108	30.0	2	0.6	10	2.8	10	2.8	62	17.2	19	5.3
Antrim	47	19.5	77	32.0	11	4.6	69	28.6	8	3.3	6	2.5	13	5.4	45	18.7	8	3.3
Arenac	36	16.1	51	22.8	15	6.7	55	24.6	4	1.8	6	2.7	8	3.6	48	21.4	9	4.0
Baraga	18	16.7	38	35.2	2	1.9	43	39.8	8	7.4	1	0.9	11	10.2	21	19.4	3	2.8
Barry	205	28.2	313	43.0	49	6.7	188	25.8	19	2.6	11	1.5	28	3.8	98	13.5	27	3.7
Bay	237	14.8	383	24.0	70	4.4	348	21.8	39	2.4	38	2.4	45	2.8	289	18.1	64	4.0
Benzie	33	20.1	41	25.0	2	1.2	52	31.7	1	0.6	4	2.4	13	7.9	27	16.5	4	2.4
Berrien	641	27.4	654	28.0	105	4.5	475	20.3	73	3.1	44	1.9	258	11.0	722	30.9	194	8.3
Branch	128	23.3	203	37.0	20	3.6	152	27.7	17	3.1	15	2.7	52	9.5	130	23.7	28	5.1
Calhoun	425	19.8	629	29.4	73	3.4	567	26.5	95	4.4	36	1.7	144	6.7	498	23.2	134	6.3
Cass	142	32.7	188	43.3	41	9.4	133	30.6	13	3.0	9	2.1	47	10.8	133	30.6	26	6.0
Charlevoix	66	21.6	100	32.8	18	5.9	61	20.0	5	1.6	3	1.0	10	3.3	46	15.1	13	4.3
Cheboygan	68	25.3	108	40.1	10	3.7	78	29.0	5	1.9	5	1.9	12	4.5	50	18.6	7	2.6
Chippewa	59	15.0	105	26.7	16	4.1	127	32.3	2	0.5	8	2.0	30	7.6	79	20.1	16	4.1
Clare	106	27.7	123	32.1	23	6.0	104	27.2	9	2.3	4	1.0	16	4.2	83	21.7	19	5.0
Clinton	118	14.2	264	31.7	72	8.7	113	13.6	21	2.5	11	1.3	31	3.7	78	9.4	15	1.8
Crawford	57	28.1	80	39.4	25	12.3	82	40.4	20	9.9	4	2.0	13	6.4	56	27.6	13	6.4
Delta	173	37.0	127	27.1	24	5.1	153	32.7	37	7.9	14	3.0	28	6.0	64	13.7	15	3.2
Dickinson	35	9.7	63	17.5	11	3.1	96	26.7	10	2.8	6	1.7	7	1.9	40	11.1	9	2.5
Eaton	206	17.6	329	28.1	109	9.3	192	16.4	42	3.6	12	1.0	69	5.9	129	11.0	36	3.1
Emmet	107	27.1	140	35.4	21	5.3	87	22.0	17	4.3	9	2.3	9	2.3	48	12.2	14	3.5
Genesee	890	11.8	1,360	18.1	118	1.6	1,611	21.4	231	3.1	49	0.7	326	4.3	1,854	24.7	457	6.1
Gladwin	69	24.3	86	30.3	19	6.7	74	26.1	1	0.4	7	2.5	29	10.2	77	27.1	8	2.8
Gogebic	48	27.3	72	40.9	12	6.8	52	29.5	3	1.7	-	-	7	4.0	21	11.9	7	4.0
Grand Traverse	151	15.8	267	28.0	42	4.4	175	18.4	16	1.7	8	0.8	60	6.3	112	11.8	26	2.7
Gratiot	121	19.8	207	33.8	69	11.3	144	23.5	6	1.0	28	4.6	32	5.2	95	15.5	23	3.8
Hillsdale	134	22.5	200	33.6	25	4.2	168	28.2	15	2.5	4	0.7	54	9.1	138	23.2	36	6.0

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

[3] Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

[4] Congenital anomalies reported have increased due to a change in reporting procedure.

[5] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1991

Area	Mecical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Houghton	72	16.4	160	36.5	17	3.9	94	21.5	24	5.5	8	1.8	15	3.4	43	9.8	10	2.3
Huron	80	19.3	127	30.7	27	6.5	79	19.1	5	1.2	12	2.9	16	3.9	54	13.0	12	2.9
Ingham	844	18.7	1,466	32.5	397	8.8	412	9.1	124	2.7	54	1.2	308	6.8	847	18.8	213	4.7
Ionia	185	21.8	213	25.1	73	8.6	195	22.9	18	2.1	19	2.2	60	7.1	149	17.5	37	4.4
Iosco	145	26.7	188	34.6	13	2.4	122	22.5	5	0.9	6	1.1	21	3.9	79	14.5	15	2.8
Iron	27	21.6	38	30.4	12	9.6	36	28.8	1	0.8	3	2.4	5	4.0	20	16.0	6	4.8
Isabella	216	30.8	278	39.6	47	6.7	162	23.1	8	1.1	11	1.6	42	6.0	105	15.0	23	3.3
Jackson	716	31.7	1,015	44.9	139	6.1	633	28.0	37	1.6	15	0.7	266	11.8	460	20.3	114	5.0
Kalamazoo	890	26.1	1,421	41.7	211	6.2	827	24.3	227	6.7	26	0.8	165	4.8	587	17.2	140	4.1
Kalkaska	40	18.8	54	25.4	11	5.2	86	40.4	7	3.3	2	0.9	17	8.0	58	27.2	10	4.7
Kent	1,584	16.8	2,415	25.6	443	4.7	1,741	18.5	160	1.7	95	1.0	641	6.8	1,577	16.7	425	4.5
Keweenaw	4	25.0	7	43.8	1	6.3	4	25.0	-	-	-	-	1	6.3	1	6.3	-	-
Lake	33	30.3	32	29.4	5	4.6	45	41.3	2	1.8	3	2.8	13	11.9	31	28.4	10	9.2
Lapeer	200	17.8	327	29.1	71	6.3	252	22.4	24	2.1	26	2.3	42	3.7	166	14.8	35	3.1
Leelanau	37	17.7	57	27.3	12	5.7	38	18.2	1	0.5	4	1.9	12	5.7	23	11.0	1	0.5
Lenawee	252	18.5	465	34.1	83	6.1	341	25.0	36	2.6	17	1.2	47	3.5	284	20.9	80	5.9
Livingston	324	19.8	492	30.1	46	2.8	327	20.0	68	4.2	25	1.5	93	5.7	142	8.7	34	2.1
Luce	11	19.0	18	31.0	3	5.2	18	31.0	1	1.7	4	6.9	-	-	11	19.0	4	6.9
Mackinac	28	22.8	42	34.1	2	1.6	25	20.3	4	3.3	1	0.8	2	1.6	17	13.8	4	3.3
Macomb	1,970	19.1	2,599	25.3	912	8.9	2,332	22.7	221	2.1	276	2.7	627	6.1	1,124	10.9	190	1.8
Manistee	38	16.5	54	23.5	9	3.9	45	19.6	1	0.4	2	0.9	29	12.6	47	20.4	9	3.9
Marquette	162	17.0	301	31.5	51	5.3	173	18.1	14	1.5	16	1.7	24	2.5	76	8.0	27	2.8
Mason	47	13.2	86	24.2	5	1.4	83	23.4	3	0.8	2	0.6	33	9.3	68	19.2	17	4.8
Mecosta	105	23.1	110	24.2	34	7.5	118	25.9	4	0.9	14	3.1	38	8.4	87	19.1	17	3.7
Menominee	83	28.6	91	31.4	18	6.2	79	27.2	13	4.5	4	1.4	17	5.9	33	11.4	10	3.4
Midland	382	32.4	576	48.8	110	9.3	240	20.3	5	0.4	21	1.8	16	1.4	131	11.1	26	2.2
Missaukee	66	41.8	44	27.8	6	3.8	42	26.6	2	1.3	1	0.6	3	1.9	31	19.6	7	4.4
Monroe	425	22.6	591	31.4	161	8.6	516	27.4	37	2.0	22	1.2	85	4.5	334	17.8	82	4.4
Montcalm	199	23.6	243	28.9	132	15.7	259	30.8	5	0.6	32	3.8	60	7.1	211	25.1	46	5.5
Montmorency	22	25.6	31	36.0	2	2.3	28	32.6	3	3.5	-	-	1	1.2	13	15.1	3	3.5

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

[3] Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

[4] Congenital anomalies reported have increased due to a change in reporting procedure.

[5] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1991

Area	Mecical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Muskegon	363	13.7	381	14.4	68	2.6	737	27.9	118	4.5	35	1.3	206	7.8	584	22.1	205	7.8
Newaygo	141	20.7	204	29.9	36	5.3	180	26.4	9	1.3	8	1.2	55	8.1	152	22.3	29	4.3
Oakland	3,632	21.9	5,062	30.6	1,158	7.0	2,846	17.2	361	2.2	608	3.7	789	4.8	1,793	10.8	392	2.4
Oceana	49	14.8	75	22.6	17	5.1	87	26.2	15	4.5	5	1.5	32	9.6	98	29.5	15	4.5
Ogemaw	34	12.1	51	18.2	16	5.7	81	28.9	4	1.4	1	0.4	7	2.5	57	20.4	15	5.4
Ontonagon	14	14.9	36	38.3	6	6.4	25	26.6	2	2.1	3	3.2	3	3.2	8	8.5	5	5.3
Osceola	114	36.3	88	28.0	20	6.4	95	30.3	2	0.6	11	3.5	25	8.0	68	21.7	11	3.5
Oscoda	19	21.1	26	28.9	9	10.0	25	27.8	-	-	1	1.1	12	13.3	27	30.0	3	3.3
Otsego	61	21.8	97	34.6	9	3.2	69	24.6	7	2.5	2	0.7	5	1.8	37	13.2	7	2.5
Ottawa	494	14.9	758	22.9	89	2.7	329	10.0	48	1.5	38	1.1	129	3.9	418	12.6	88	2.7
Presque Isle	38	29.5	62	48.1	5	3.9	37	28.7	4	3.1	2	1.6	2	1.6	11	8.5	1	0.8
Roscommon	58	24.3	72	30.1	25	10.5	86	36.0	18	7.5	6	2.5	15	6.3	64	26.8	15	6.3
Saginaw	939	25.6	1,077	29.4	126	3.4	809	22.1	292	8.0	54	1.5	309	8.4	870	23.7	245	6.7
St Clair	339	16.3	388	18.7	110	5.3	670	32.3	88	4.2	32	1.5	98	4.7	425	20.5	78	3.8
St Joseph	163	18.8	284	32.7	64	7.4	228	26.3	16	1.8	19	2.2	47	5.4	233	26.8	53	6.1
Sanilac	101	18.1	151	27.1	40	7.2	161	28.9	25	4.5	11	2.0	30	5.4	96	17.2	17	3.1
Schoolcraft	16	15.0	33	30.8	2	1.9	31	29.0	-	-	-	-	3	2.8	22	20.6	8	7.5
Shiawassee	165	16.4	308	30.5	61	6.0	223	22.1	40	4.0	16	1.6	38	3.8	174	17.2	40	4.0
Tuscola	139	17.6	179	22.6	29	3.7	195	24.7	40	5.1	7	0.9	40	5.1	145	18.3	27	3.4
Van Buren	267	23.1	414	35.8	55	4.8	271	23.4	41	3.5	13	1.1	115	9.9	341	29.5	67	5.8
Washtenaw	1,056	25.0	1,295	30.7	50	1.2	526	12.5	201	4.8	47	1.1	401	9.5	387	9.2	106	2.5
Wayne	9,030	22.6	10,336	25.8	2,577	6.4	9,094	22.7	982	2.5	483	1.2	4,352	10.9	11,466	28.7	2,802	7.0
Wexford	159	38.5	105	25.4	14	3.4	142	34.4	18	4.4	4	1.0	25	6.1	78	18.9	21	5.1
Unknown	4	30.8	5	38.5	2	15.4	4	30.8	1	7.7	-	-	1	7.7	2	15.4	1	7.7

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

[3] Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

[4] Congenital anomalies reported have increased due to a change in reporting procedure.

[5] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.12
Live Births by Age of Mother and County of Residence
Michigan Residents, 1991

Area	Total	Age of Mother											
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 and Over	Age Not Stated
Michigan	149,478	414	1,029	2,032	3,684	5,559	7,021	19,325	39,546	45,995	32,025	10,627	1,500	46
Alcona	99	-	1	2	3	-	5	11	36	25	22	3	2	-
Alger	93	-	-	2	2	5	6	15	26	20	24	8	-	-
Allegan	1,406	2	5	20	34	50	59	168	407	475	261	87	5	1
Alpena	360	1	2	9	7	13	23	54	89	123	64	25	3	1
Antrim	241	-	-	3	5	8	16	32	62	79	44	19	5	-
Arenac	224	-	2	2	5	9	18	36	60	67	46	14	1	-
Baraga	108	-	-	-	3	3	3	9	32	32	23	12	-	-
Barry	728	1	3	7	16	23	34	83	205	243	139	51	6	-
Bay	1,597	6	10	11	37	76	70	204	409	539	336	89	14	-
Benzie	164	-	-	3	1	4	8	16	53	53	35	7	-	-
Berrien	2,337	16	33	52	93	131	148	457	723	637	372	116	14	2
Branch	549	2	-	4	22	18	34	78	205	157	74	31	2	-
Calhoun	2,142	10	18	40	66	100	122	346	676	637	341	111	20	1
Cass	434	1	5	6	14	23	33	81	169	112	54	14	3	-
Charlevoix	305	1	1	6	5	7	8	27	91	95	66	23	2	-
Cheboygan	269	-	-	3	4	10	14	31	96	62	48	28	4	-
Chippewa	393	-	1	7	8	17	19	52	122	142	49	26	2	-
Clare	383	-	1	7	11	19	25	63	150	88	61	17	3	1
Clinton	832	-	-	5	10	30	25	70	188	317	193	52	11	1
Crawford	203	1	4	1	7	6	8	26	66	57	37	14	2	-
Delta	468	1	1	4	9	15	28	57	129	149	89	31	12	-
Dickinson	359	-	-	2	7	10	14	33	93	128	74	30	1	-
Eaton	1,172	-	5	9	22	42	52	130	326	355	268	88	5	-
Emmet	395	-	2	4	8	10	18	42	102	101	97	47	6	-
Genesee	7,513	39	67	140	211	309	416	1,143	2,308	2,158	1,390	393	82	-
Gladwin	284	-	1	3	4	15	16	39	104	81	44	16	-	-
Gogebic	176	-	1	1	5	5	12	24	41	53	36	20	1	1
Grand Traverse I	953	-	3	9	14	23	35	84	240	312	229	80	8	-
Gratiot	612	-	3	5	15	21	30	74	188	195	114	37	4	-
Hillsdale	596	1	5	10	20	22	46	103	189	176	94	26	6	1
Houghton	438	-	-	3	7	18	18	46	125	129	87	40	11	-
Huron	414	-	3	2	7	7	10	29	128	152	82	19	4	-
Ingham	4,517	14	34	72	93	162	199	560	1,191	1,370	991	326	63	2
Ionia	850	1	7	9	20	20	38	94	270	287	143	46	9	-
Iosco	543	-	-	5	10	21	25	61	196	179	80	25	2	-
Iron	125	-	1	2	3	7	9	22	33	40	21	7	2	-
Isabella	702	-	-	7	16	19	32	74	216	227	136	42	5	2
Jackson	2,262	7	21	27	59	76	133	316	684	694	416	122	21	2
Kalamazoo	3,409	7	21	33	79	124	143	400	852	1,073	778	269	30	-
Kalkaska	213	-	2	1	7	9	13	32	90	54	21	16	-	-
Kent	9,432	26	57	140	202	304	366	1,069	2,401	3,132	2,105	627	69	3
Keweenaw	16	-	-	-	-	-	-	-	7	5	2	1	1	-

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.12 (continued)
Live Births by Age of Mother and County of Residence
Michigan Residents, 1991

Area	Total	Age of Mother											
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 and Over	Age Not Stated
Lake	109	-	2	3	5	4	7	21	40	32	11	4	1	-
Lapeer	1,124	-	2	11	22	49	59	143	315	361	220	72	13	-
Leelanau	209	-	-	1	-	6	3	10	49	69	53	24	4	-
Lenawee	1,362	2	5	21	52	71	61	210	409	392	275	65	9	-
Livingston	1,636	-	3	5	26	29	39	102	330	554	471	157	20	2
Luce	58	-	-	1	3	5	4	13	24	11	8	1	1	-
Mackinac	123	-	2	1	1	4	9	17	29	47	21	8	1	-
Macomb	10,288	4	19	55	112	204	254	644	2,092	3,858	2,817	784	86	3
Manistee	230	1	-	-	8	7	17	32	68	78	42	7	2	-
Marquette	955	-	-	9	18	18	38	83	270	312	216	63	11	-
Mason	355	-	1	4	12	22	15	54	110	97	67	26	1	-
Mecosta	455	-	1	8	8	16	32	65	154	133	85	17	1	-
Menominee	290	-	1	4	5	8	14	32	75	105	48	28	2	-
Midland	1,180	1	3	2	20	36	42	103	294	405	273	88	16	-
Missaukee	158	-	1	5	1	8	6	21	49	50	33	5	-	-
Monroe	1,880	3	8	22	49	83	103	265	539	602	367	98	5	1
Montcalm	842	-	6	8	32	43	47	136	296	236	140	31	3	-
Montmorency	86	-	-	-	3	3	4	10	38	19	9	9	1	-
Muskegon	2,644	20	25	50	110	122	135	442	799	733	499	132	17	2
Newaygo	682	1	5	9	14	26	36	90	205	227	120	37	2	-
Oakland	16,555	19	43	112	218	360	399	1,132	3,024	5,419	5,000	1,699	262	-
Oceana	332	-	-	4	11	9	12	36	116	97	60	17	5	1
Ogemaw	280	1	2	4	8	16	11	41	92	99	37	8	2	-
Ontonagon	94	-	1	2	2	3	12	20	33	22	18	1	-	-
Osceola	314	-	3	3	5	16	21	48	95	94	56	19	1	1
Oscoda	90	-	1	-	2	5	2	10	32	29	16	1	2	-
Otsego	280	-	-	1	6	10	17	34	72	88	52	32	2	-
Ottawa	3,306	6	9	25	48	64	117	263	759	1,251	780	226	20	1
Presque Isle	129	-	-	1	-	4	4	9	34	50	23	12	1	-
Roscommon	239	2	2	5	6	19	14	46	69	72	27	20	3	-
Saginaw	3,664	17	41	66	121	164	236	628	1,047	1,025	708	203	33	3
St Clair	2,077	1	11	26	40	72	97	246	579	708	389	146	7	1
St Joseph	868	1	8	15	29	37	59	148	273	253	132	54	7	-
Sanilac	557	-	1	2	14	20	22	59	180	175	106	34	3	-
Schoolcraft	107	1	-	2	5	5	6	18	32	36	18	2	-	-
Shiawassee	1,009	3	3	7	27	40	51	128	292	336	187	52	11	-
Tuscola	791	-	5	5	17	33	47	107	245	258	142	30	9	-
Van Buren	1,156	3	10	19	35	61	74	199	361	293	214	71	14	1
Washtenaw	4,221	5	15	35	51	84	153	338	765	1,326	1,156	540	91	-
Wayne	40,001	186	468	794	1,354	1,964	2,386	6,966	11,327	10,928	7,471	2,724	387	12
Wexford	413	-	2	7	12	17	25	63	150	101	71	25	3	-
Co. Not Stated	13	-	-	-	1	1	-	2	6	4	1	-	-	-

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.13

Vital Statistics for Residents of Selected Michigan Cities[1]

1991

Area	Live Births	Deaths	Infant Deaths		Fetal Deaths	
			Number	Rate	Number	Rate
Allen Park	338	342	-	-	3	*
Ann Arbor	1,548	496	19	12.3	5	*
Battle Creek	1,220	632	10	8.2	3	*
Bay City	733	424	10	13.6	5	*
Burton City	416	248	5	*	1	*
Dearborn	1,492	909	11	7.4	5	*
Dearborn Heights	781	585	2	*	3	*
Detroit	23,457	11,591	456	19.4	150	6.4
East Detroit	492	369	7	14.2	1	*
East Lansing	390	115	2	*	-	-
Farmington Hills	950	520	7	7.4	2	*
Ferndale	483	298	3	*	1	*
Flint	3,637	1,436	62	17.0	12	3.3
Garden City	434	254	2	*	2	*
Grand Rapids	4,360	1,930	50	11.5	35	8.0
Highland Park	508	322	16	31.5	3	*
Holland	702	267	6	9.3	3	*
Inkster	642	312	8	12.5	-	-
Jackson	915	448	4	*	6	6.5
Kalamazoo	1,493	708	22	14.7	14	9.3
Kentwood	701	161	7	10.0	2	*
Lansing	2,777	980	23	8.3	21	7.5
Lincoln Park	661	428	5	*	3	*
Livonia	1,282	860	9	7.0	8	6.2
Madison Heights	507	270	3	*	4	*
Midland	610	274	1	*	5	*
Muskegon	936	447	12	12.8	7	7.4
Oak Park	541	239	3	*	4	*
Pontiac	1,820	672	42	23.1	16	8.7
Portage	566	192	3	*	2	*
Port Huron	60[illegible]	408	8	13.3	-	-
Roseville	770	472	5	*	5	*
Royal Oak	972	567	4	*	6	6.1
Saginaw	1,871	685	32	17.1	15	8.0
St. Clair Shores	810	767	8	9.9	1	*
Southfield	978	802	9	9.2	5	*
Southgate	385	255	6	15.6	-	-
Sterling Heights	1,531	732	6	3.9	4	*
Taylor	1,264	539	15	11.9	4	*
Troy	932	384	4	*	4	*
Warren	1,997	1,479	17	8.5	6	3.0
Westland	1,416	740	8	5.6	4	*
Wyandotte	464	353	5	*	2	*
Wyoming	1,238	384	14	11.3	6	4.8

[1] 25,000 population or over according to the 1980 Census.

[2] On January 1, 1983, Battle Creek City annexed Battle Creek Township. The data shown for Battle Creek in this table are for the current boundaries of Battle Creek, and thus are not comparable to data for Battle Creek for earlier years. The infant death rate in 1982 for the area which is now Battle Creek was 15.9.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms							
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Michigan	79,738	41	1,267	19,204	4,562	5,496	1,636	2,192	814	741	3,763
Alcona	156	-	3	34	9	13	1	4	1	3	3
Alger	113	-	2	26	5	9	1	5	1	1	4
Allegan	708	-	9	163	43	40	13	19	9	2	37
Alpena	302	-	4	92	26	24	11	9	2	3	17
Antrim	202	-	-	52	8	20	4	5	3	1	11
Arenac	186	-	1	46	16	16	1	6	2	1	4
Baraga	110	-	-	27	6	6	1	3	3	2	6
Barry	364	-	4	79	18	18	11	9	5	3	15
Bay	1,009	-	10	259	57	75	18	31	16	12	50
Benzie	150	-	1	43	10	13	-	8	4	1	7
Berrien	1,615	1	15	384	85	122	29	39	14	20	75
Branch	393	-	6	85	20	27	9	5	1	4	19
Calhoun	1,368	1	21	304	72	86	23	37	12	7	67
Cass	410	-	3	98	21	24	14	14	2	3	20
Charlevoix	183	-	1	50	11	7	4	9	-	3	16
Cheboygan	236	-	2	70	17	16	5	8	4	2	18
Chippewa	254	-	1	62	17	18	3	8	2	4	10
Clare	315	-	2	74	11	32	3	6	1	4	17
Clinton	375	-	6	80	18	15	9	13	4	4	17
Crawford	123	-	1	25	8	8	3	3	1	1	1
Delta	384	-	2	112	29	27	12	17	5	5	17
Dickinson	318	-	3	72	14	16	9	9	5	2	17
Eaton	629	-	8	164	49	33	16	13	8	3	42
Emmet	239	-	5	57	15	19	4	3	2	3	11
Genesee	3,590	1	58	832	196	266	64	94	38	25	149
Gladwin	243	-	2	71	16	25	4	8	3	2	13
Gogebic	285	-	2	72	26	16	3	7	3	3	14
GrandTraverse	513	-	9	119	28	28	13	8	8	3	31
Gratiot	366	-	4	63	13	15	4	7	4	3	17
Hillsdale	359	1	7	84	21	20	6	9	2	4	22
Houghton	396	-	1	82	21	24	7	13	6	3	8
Huron	413	-	2	86	19	14	6	19	3	6	19
Ingham	1,720	2	32	397	97	97	28	42	14	21	98
Ionia	416	-	4	88	24	16	6	11	5	2	24
Iosco	323	-	4	80	25	25	3	14	3	1	9
Iron	213	-	-	54	14	17	-	8	1	1	13
Isabella	327	-	2	84	17	24	6	11	2	3	21
Jackson	1,380	-	16	349	72	95	24	49	15	19	75
Kalamazoo	1,602	1	27	402	80	103	43	42	17	18	99
Kalkaska	119	1	2	27	4	10	5	1	1	-	6
Kent	3,762	3	63	918	216	217	88	108	42	37	210

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms							
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Keweenaw	30	-	-	4	1	1	-	1	-	-	1
Lake	136	-	-	46	10	15	1	9	3	1	7
Lapeer	529	-	2	134	32	41	12	16	3	7	23
Leelanau	161	-	3	45	11	12	7	7	2	1	5
Lenawee	733	-	9	193	33	64	17	22	6	6	45
Livingston	675	-	7	168	37	47	18	19	6	3	38
Luce	65	-	2	13	1	3	-	2	1	1	5
Mackinac	123	-	-	35	13	7	3	5	2	2	3
Macomb	5,966	-	85	1,572	372	457	138	165	64	57	319
Manistee	269	-	2	64	22	20	8	6	1	1	6
Marquette	546	1	8	117	36	39	11	9	3	4	15
Mason	289	-	2	67	19	18	4	7	4	4	11
Mecosta	337	-	5	71	13	26	5	8	2	2	15
Menominee	302	-	-	70	19	19	5	9	3	3	12
Midland	487	-	8	119	27	43	8	13	4	4	20
Missaukee	109	-	-	22	5	7	-	1	1	1	7
Monroe	1,000	-	12	245	54	81	24	26	13	11	36
Montcalm	483	-	5	124	30	45	7	11	5	5	21
Montmorency	131	-	1	32	13	7	3	6	-	-	3
Muskegon	1,373	2	21	316	70	88	30	31	9	20	68
Newaygo	358	-	10	95	23	25	13	8	7	2	17
Oakland	7,932	2	117	2,039	452	567	186	227	83	95	429
Oceana	215	-	1	46	15	13	4	6	-	1	7
Ogemaw	269	-	3	57	15	24	2	4	3	1	8
Ontonagon	134	-	2	28	4	7	4	2	-	3	8
Osceola	215	-	3	56	17	18	6	5	2	1	7
Oscoda	106	-	1	28	4	8	-	4	1	1	10
Otsego	177	-	1	39	4	12	4	6	2	1	10
Ottawa	1,172	-	7	280	78	65	36	24	14	14	49
PresqueIsle	133	-	1	33	6	5	2	7	2	2	9
Roscommon	290	-	5	71	14	28	3	5	3	5	13
Saginaw	1,882	1	17	429	117	113	29	63	20	15	72
St.Clair	1,246	1	12	313	86	80	26	35	13	16	57
St.Joseph	559	-	5	124	30	40	9	8	9	3	25
Sanilac	383	-	7	96	26	23	11	9	5	5	17
Schoolcraft	103	-	3	24	4	9	1	3	1	1	5
Shiawassee	558	-	3	136	36	26	14	14	9	7	30
Tuscola	501	-	3	116	27	39	5	12	8	4	21
VanBuren	655	-	13	177	35	51	16	11	8	10	46
Washtenaw	1,485	-	37	357	91	84	35	55	18	14	60
Wayne	21,186	23	496	4,870	1,165	1,504	408	571	194	161	867
Wexford	263	-	3	67	21	19	7	6	6	1	7
Co.NotStated	3	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases						Pneumonia and Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum	Chronic Liver Disease and Cirrhosis
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebrovascular Disease	Atherosclerosis	Other Diseases of Arteries, Arterioles, and Capillaries				
Michigan	2,095	123	34,708	27,517	260	5,165	823	943	2,773	3,117	226	1,060
Alcona	3	-	77	60	-	9	4	4	6	7	-	3
Alger	2	-	63	51	1	10	-	1	3	2	-	-
Allegan	22	-	306	233	3	40	18	12	31	34	2	12
Alpena	2	-	130	102	-	22	2	4	6	10	1	4
Antrim	3	-	95	78	-	15	2	-	10	8	-	1
Arenac	1	2	83	70	-	10	2	1	7	6	1	2
Baraga	6	-	50	42	-	7	-	1	5	5	-	3
Barry	4	-	163	126	2	24	4	7	20	17	2	3
Bay	27	1	471	378	5	54	22	12	17	43	3	16
Benzie	4	-	62	49	2	7	4	-	5	11	-	-
Berrien	41	4	700	517	4	118	29	32	50	74	-	13
Branch	14	2	169	144	1	13	7	4	14	25	-	5
Calhoun	46	1	587	461	6	86	19	15	66	50	3	21
Cass	12	-	177	144	2	21	1	9	14	22	2	2
Charlevoix	3	-	70	54	-	13	-	3	9	6	-	4
Cheboygan	6	-	93	77	1	10	1	4	10	11	-	4
Chippewa	8	-	110	84	1	21	-	4	6	9	-	3
Clare	10	-	159	136	-	20	1	2	10	16	-	5
Clinton	8	-	167	123	1	32	7	4	15	15	-	7
Crawford	4	3	47	29	-	12	5	1	8	6	-	2
Delta	14	1	169	117	1	36	11	4	14	13	1	-
Dickinson	7	1	148	107	1	36	1	3	8	16	2	5
Eaton	17	-	266	213	-	35	8	10	20	21	5	6
Emmet	5	-	90	69	-	18	1	2	19	14	-	6
Genesee	99	2	1,603	1,280	10	240	27	46	89	157	12	46
Gladwin	4	-	109	88	2	13	4	2	9	12	-	3
Gogebic	6	-	130	98	-	24	3	5	11	7	1	1
GrandTraverse	11	2	198	147	-	38	3	10	15	27	-	5
Gratiot	6	-	204	160	-	38	1	5	24	16	1	1
Hillsdale	12	1	142	106	1	25	3	7	17	21	2	1
Houghton	6	-	186	130	1	42	6	7	33	12	-	3
Huron	6	2	221	175	3	37	-	6	11	20	3	7
Ingham	36	5	698	546	11	97	20	24	68	75	4	22
Ionia	21	1	166	130	1	26	7	2	15	16	-	4
Iosco	8	-	139	109	-	19	7	4	12	18	1	6
Iron	5	-	93	70	-	16	7	-	11	5	1	2
Isabella	14	-	138	98	-	29	4	7	17	8	2	3
Jackson	31	2	555	448	1	82	13	11	80	80	5	12
Kalamazoo	38	5	672	512	7	121	15	17	62	54	4	17
Kalkaska	5	-	54	39	1	8	4	2	3	5	1	2
Kent	68	1	1,562	1,256	12	208	35	51	155	163	15	26

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases						Pneumonia and Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum	Chronic Liver Disease and Cirrhosis
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebro-vascular Disease	Athero-sclerosis	Other Diseases of Arteries, Arterioles, and Capillaries				
Keweenaw	-	-	17	15	-	1	-	1	2	2	-	-
Lake	3	-	57	46	-	5	2	4	4	7	-	2
Lapeer	14	-	220	166	4	40	6	4	21	27	-	9
Leelanau	4	-	63	46	1	12	3	1	3	4	1	5
Lenawee	23	-	314	243	-	52	10	9	35	34	1	2
Livingston	15	-	313	241	1	57	6	8	16	27	-	7
Luce	2	-	24	19	-	5	-	-	3	4	-	2
Mackinac	2	1	47	36	-	7	-	4	8	9	-	-
Macomb	156	16	2,730	2,172	15	402	90	51	238	214	17	81
Manistee	8	-	143	94	-	26	17	6	6	9	1	1
Marquette	5	2	270	197	2	53	10	8	28	17	-	7
Mason	6	-	138	105	5	20	3	5	8	11	1	2
Mecosta	9	-	148	122	-	20	2	4	18	19	1	1
Menominee	12	3	139	103	1	19	14	2	17	14	-	2
Midland	14	2	222	164	1	38	15	4	12	20	1	3
Missaukee	3	-	45	36	-	8	-	1	5	5	3	2
Monroe	32	1	429	351	3	61	3	11	22	48	2	12
Montcalm	9	3	204	159	-	28	5	12	23	22	4	2
Montmorency	3	-	59	50	-	5	1	3	9	3	1	2
Muskegon	42	-	606	442	9	111	28	16	42	62	4	14
Newaygo	5	-	158	126	1	25	4	2	20	13	-	5
Oakland	193	12	3,531	2,800	25	568	45	93	194	312	26	105
Oceana	4	-	94	80	-	11	2	1	20	8	-	1
Ogemaw	8	-	146	108	-	24	13	1	11	10	3	1
Ontonagon	4	-	61	40	-	9	8	4	4	9	2	1
Osceola	3	-	98	80	1	7	2	8	11	8	1	2
Oscoda	1	-	46	36	-	5	1	4	5	4	-	4
Otsego	2	-	84	59	-	19	5	1	7	6	-	1
Ottawa	24	-	476	369	5	72	18	12	81	49	6	9
PresqueIsle	7	-	62	50	-	7	2	3	5	5	1	3
Roscommon	5	-	128	102	1	18	4	3	17	13	1	6
Saginaw	61	1	869	655	11	151	31	21	49	66	6	20
St.Clair	25	1	570	454	4	91	3	18	20	55	1	17
St.Joseph	30	1	227	188	1	29	2	7	19	19	2	11
Sanilac	16	1	166	130	1	31	2	2	13	13	2	4
Schoolcraft	2	-	42	31	1	9	-	1	4	4	-	2
Shiawassee	21	-	252	172	4	49	20	7	15	31	1	2
Tuscola	13	-	235	186	4	30	7	8	12	16	-	5
VanBuren	23	1	278	204	3	45	16	10	8	30	1	7
Washtenaw	41	1	619	473	3	111	16	16	46	58	8	18
Wayne	594	41	8,935	7,416	69	1,139	95	216	675	679	54	392
Wexford	6	-	119	93	3	13	4	6	12	14	-	-
Co.NotStated	-	-	2	2	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complications of Pregnancy, Childbirth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Perinatal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Intervention	All Other External Causes
							Total	Motor Vehicle	All Other			
Michigan	800	16	439	823	387	7,248	3,011	1,494	1,517	1,139	1,138	123
Alcona	2	-	-	-	-	14	7	5	2	-	-	-
Alger	1	-	-	-	-	10	2	1	1	2	-	-
Allegan	10	1	1	5	1	69	31	18	13	9	2	-
Alpena	1	-	1	2	-	29	14	6	8	3	2	1
Antrim	3	-	1	-	-	13	13	5	8	3	-	-
Arenac	1	-	-	2	-	23	9	5	4	2	-	-
Baraga	-	-	-	-	-	7	6	3	3	1	-	-
Barry	4	-	1	1	1	34	24	13	11	7	-	-
Bay	13	-	7	11	3	58	42	24	18	21	6	1
Benzie	4	-	-	-	3	11	5	2	3	-	1	-
Berrien	19	-	11	13	8	174	74	35	39	22	10	2
Branch	9	-	2	2	4	35	15	4	11	6	-	-
Calhoun	12	-	8	8	7	142	55	23	32	18	17	1
Cass	8	-	3	1	1	29	31	21	10	6	1	-
Charlevoix	2	-	-	1	-	21	10	4	6	4	2	-
Cheboygan	4	-	1	1	-	21	7	5	2	4	2	-
Chippewa	2	-	2	1	1	35	8	4	4	4	2	-
Clare	1	-	1	2	-	24	7	1	6	4	-	-
Clinton	4	-	2	3	2	41	21	9	12	3	1	-
Crawford	1	-	2	1	1	16	5	3	2	-	1	-
Delta	3	-	5	3	-	30	13	7	6	4	-	-
Dickinson	4	-	3	1	3	27	15	5	10	2	1	-
Eaton	7	-	1	4	4	64	34	19	15	7	1	-
Emmet	5	-	2	3	1	18	8	3	5	6	-	-
Genesee	41	-	23	53	22	284	151	92	59	50	60	7
Gladwin	-	-	-	1	2	15	8	3	5	7	-	-
Gogebic	3	-	1	1	3	30	14	6	8	3	-	-
GrandTraverse	4	1	3	8	4	71	27	13	14	8	1	-
Gratiot	5	-	4	1	-	23	9	8	1	5	-	-
Hillsdale	3	-	4	1	-	33	20	7	13	8	2	-
Houghton	5	-	3	-	2	43	16	7	9	2	1	1
Huron	2	-	1	3	-	32	14	5	9	1	2	-
Ingham	24	-	10	14	13	176	82	37	45	46	16	-
Ionia	6	-	5	5	3	42	30	15	15	7	3	-
Iosco	3	-	1	1	1	36	8	5	3	4	1	-
Iron	3	-	1	1	0	23	9	2	7	4	1	-
Isabella	9	-	1	2	4	23	12	9	3	7	1	-
Jackson	15	-	6	8	6	104	62	31	31	31	17	1
Kalamazoo	11	3	11	22	9	170	53	22	31	26	15	-
Kalkaska	1	-	-	-	2	11	2	2	-	2	1	-
Kent	28	1	29	43	38	402	154	69	85	56	29	8

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1991

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complications of Pregnancy, Childbirth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Perinatal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Intervention	All Other External Causes
							Total	Motor Vehicle	All Other			
Keweenaw	-	-	-	-	-	4	1	-	1	-	-	-
Lake	1	-	1	-	2	7	4	2	2	1	1	-
Lapeer	7	-	6	11	3	39	25	13	12	10	-	1
Leelanau	-	1	3	1	-	20	5	3	2	2	1	-
Lenawee	8	-	-	4	2	71	28	15	13	7	2	-
Livingston	6	-	7	5	-	54	38	23	15	6	4	2
Luce	2	-	1	-	-	7	4	1	3	1	-	-
Mackinac	1	-	-	-	1	10	6	2	4	1	2	-
Macomb	45	-	22	43	13	479	148	61	87	72	29	6
Manistee	1	-	-	-	-	23	9	4	5	2	-	-
Marquette	1	-	3	3	1	51	21	8	13	10	1	-
Mason	7	-	-	1	1	32	7	3	4	6	-	-
Mecosta	1	-	2	2	3	29	21	8	13	7	-	-
Menominee	3	-	2	1	-	25	11	3	8	3	-	-
Midland	2	-	6	1	3	46	22	15	7	4	1	1
Missaukee	0	-	1	1	2	9	5	3	2	5	1	-
Monroe	8	-	6	3	4	83	61	41	20	26	6	-
Montcalm	3	-	1	1	3	51	18	9	9	5	5	-
Montmorency	2	-	-	1	-	5	10	6	4	1	2	-
Muskegon	12	1	14	15	6	125	69	32	37	16	6	-
Newaygo	4	-	-	2	1	22	17	5	12	5	1	-
Oakland	61	2	46	69	23	711	273	154	119	128	67	21
Oceana	4	-	1	1	1	17	15	6	9	1	1	-
Ogemaw	1	-	1	-	-	15	10	5	5	2	1	-
Ontonagon	1	-	-	-	1	16	3	1	2	2	-	-
Osceola	3	-	1	-	1	11	12	7	5	4	1	-
Oscoda	-	-	-	-	1	6	9	3	6	1	-	-
Otsego	-	-	-	-	1	22	10	3	7	4	-	-
Ottawa	14	-	7	13	7	119	54	31	23	21	5	-
PresqueIsle	1	-	-	-	-	8	4	2	2	3	-	-
Roscommon	1	-	1	-	-	23	14	10	4	4	-	1
Saginaw	29	1	8	28	6	165	71	30	41	22	32	1
St.Clair	19	-	8	6	1	126	46	25	21	21	3	1
St.Joseph	12	-	4	4	2	53	30	23	7	13	3	-
Sanilac	8	-	1	2	2	26	18	9	9	6	1	1
Schoolcraft	3	-	1	-	1	11	3	1	2	3	-	-
Shiawassee	6	-	1	3	3	42	31	18	13	8	2	1
Tuscola	4	-	2	5	2	45	33	25	8	8	2	-
VanBuren	5	-	2	3	3	54	37	21	16	9	4	-
Washtenaw	12	1	14	16	10	149	62	32	30	30	5	1
Wayne	217	4	108	349	127	1,951	606	263	343	251	750	64
Wexford	1	-	1	-	1	23	13	10	3	3	-	-
Co.NotStated	1	-	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.15
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1991

Area	Total	Gonorrhea	Chicken Pox	Hepatitis (all types)	Salmonella Infections	Tuberculosis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningococcal Infections	Whooping Cough
Michigan	69,734	27,015	36,114	1,120	1,143	451	3,520	123	38	66	34	75	38
Alcona	-	-	-	-	-	-	-	-	-	-	-	-	-
Alger	-	-	-	-	-	-	-	-	-	-	-	-	-
Allegan	218	16	174	11	12	1	3	-	-	-	-	1	-
Alpena	292	2	283	-	2	-	2	1	-	1	1	-	-
Antrim	8	-	3	1	4	-	-	-	-	-	-	-	-
Arenac	4	1	-	-	-	1	1	-	-	-	-	-	1
Baraga	1	-	-	-	-	-	1	-	-	-	-	-	-
Barry	108	4	78	4	18	1	3	-	-	-	-	-	-
Bay	828	28	782	4	6	2	5	-	-	1	-	-	-
Benzie	85	-	81	1	-	2	-	1	-	-	-	-	-
Berrien	2,100	1,185	745	24	60	22	61	1	2	-	-	1	1
Branch	270	6	252	5	3	-	-	3	-	1	-	-	-
Calhoun	667	403	206	18	18	7	7	1	2	-	-	-	5
Cass	330	79	232	6	5	2	3	-	-	-	-	1	2
Charlevoix	30	-	10	2	17	-	-	1	-	-	-	-	-
Cheboygan	80	-	76	1	-	1	2	-	-	-	-	-	-
Chippewa	430	4	407	-	3	1	11	-	-	-	-	4	-
Clare	72	1	69	-	2	-	-	-	-	-	-	-	-
Clinton	83	4	68	6	5	-	-	-	-	-	-	-	-
Crawford	19	1	16	-	-	-	-	-	-	-	-	2	-
Delta	184	-	177	3	3	-	-	-	-	-	-	1	-
Dickinson	105	-	102	1	2	-	-	-	-	-	-	-	-
Eaton	242	19	203	6	10	1	3	-	-	-	-	-	-
Emmet	8	2	2	3	1	-	-	-	-	-	-	-	-
Genesee	3,400	2,334	944	25	46	19	27	1	-	1	-	-	3
Gladwin	86	2	79	1	3	-	-	1	-	-	-	-	-
Gogebic	23	1	21	-	-	-	1	-	-	-	-	-	-
Grand Traverse	267	13	230	4	14	4	-	-	-	-	-	2	-
Gratiot	94	5	81	2	3	-	-	2	-	-	-	1	-
Hillsdale	216	3	199	4	2	-	2	4	-	1	1	-	-
Houghton	137	3	132	-	2	-	-	-	-	-	-	-	-
Huron	63	5	49	8	-	1	-	-	-	-	-	-	-
Ingham	1,387	830	436	52	34	12	20	-	2	-	-	1	-
Ionia	283	7	254	2	6	1	9	2	1	-	1	-	-
Iosco	84	2	79	1	1	-	1	-	-	-	-	-	-
Iron	75	-	74	-	-	-	1	-	-	-	-	-	-
Isabella	1,097	22	1,045	-	8	1	2	1	12	-	3	3	-
Jackson	621	192	289	56	20	15	43	-	1	-	-	2	3
Kalamazoo	1,370	890	363	73	25	7	9	-	-	-	-	3	-
Kalkaska	8	-	4	-	4	-	-	-	-	-	-	-	-
Kent	4,378	1,844	2,299	87	65	16	55	1	3	-	-	7	1

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.15 (continued)
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1991

Area	Total	Gonorrhea	Chicken Pox	Hepatitis (all types)	Salmonella Infections	Tuberculosis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningococcal Infections	Whooping Cough
Keweenaw	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake	12	11	-	1	-	-	-	-	-	-	-	-	-
Lapeer	318	3	297	6	9	1	-	-	-	1	-	-	1
Leelanau	20	-	10	6	1	1	2	-	-	-	-	-	-
Lenawee	299	45	233	10	4	4	1	1	-	-	-	1	-
Livingston	570	12	527	10	12	1	1	3	-	2	1	-	1
Luce	-	-	-	-	-	-	-	-	-	-	-	-	-
Mackinac	3	3	-	-	-	-	-	-	-	-	-	-	-
Macomb	3,013	225	2,597	75	69	17	22	-	2	1	1	4	-
Manistee	30	-	23	2	4	1	-	-	-	-	-	-	-
Marquette	123	15	74	14	10	1	1	-	-	-	-	2	6
Mason	255	5	241	1	7	-	1	-	-	-	-	-	-
Mecosta	218	37	165	3	3	1	1	-	-	-	8	-	-
Menominee	20	1	16	-	2	-	-	-	-	-	-	-	1
Midland	245	14	191	2	9	-	1	-	-	27	-	1	-
Missaukee	11	-	10	-	-	-	-	-	-	-	-	1	-
Monroe	625	29	559	9	12	2	3	9	-	1	-	1	-
Montcalm	98	8	65	7	5	2	2	3	-	2	4	-	-
Montmorency	21	-	20	-	1	-	-	-	-	-	-	-	-
Muskegon	1,823	987	731	31	20	6	42	2	-	3	-	-	1
Newaygo	381	16	355	5	4	-	1	-	-	-	-	-	-
Oakland	8,060	1,693	5,876	148	142	31	116	33	2	7	1	10	2
Oceana	109	4	97	2	2	1	1	1	-	-	-	1	-
Ogemaw	9	2	4	-	-	-	1	-	-	-	-	1	1
Ontonagon	2	-	2	-	-	-	-	-	-	-	-	-	-
Osceola	98	1	96	-	-	1	-	-	-	-	-	-	-
Oscoda	1	1	-	-	-	-	-	-	-	-	-	-	-
Otsego	37	-	29	2	3	1	1	1	-	-	-	-	-
Ottawa	1,087	76	938	22	32	2	7	7	-	2	-	1	-
Presque Isle	53	-	52	-	1	-	-	-	-	-	-	-	-
Roscommon	5	1	2	-	1	-	-	-	-	-	-	1	-
Saginaw	2,438	1,156	1,200	9	18	5	42	4	4	-	-	-	-
St. Clair	563	78	440	13	14	11	5	1	-	-	-	1	-
St. Joseph	191	23	138	15	8	3	1	-	-	1	1	1	1
Sanilac	213	5	192	5	5	1	-	3	-	-	1	1	-
Schoolcraft	56	-	56	-	-	-	-	-	-	-	-	-	-
Shiawassee	726	4	703	10	9	-	-	-	-	-	-	-	-
Tuscola	386	8	373	1	3	-	-	-	-	-	-	1	-
Van Buren	72	69	-	-	-	2	1	-	-	-	-	-	-
Washtenaw	619	446	21	18	49	7	63	-	1	-	11	3	-
Wayne	27,090	14,129	9,164	281	276	232	2,931	35	5	14	-	14	8
Wexford	81	-	73	1	4	-	1	-	1	-	-	1	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.16
Number of Deaths by Cause
Michigan Residents, 1991

ICD List Number	Cause of Death	Number
	I. INFECTIOUS AND PARASITIC DISEASES (001-139)	
7	Other protozoal intestinal diseases	1
8	Intestinal infections due to other organisms	6
9	Ill-defined intestinal infections	9
11	Pulmonary tuberculosis	23
12	Other respiratory tuberculosis	1
13	Tuberculosis of meninges and central nervouse system	1
15	Tuberculosis of bones and joints	2
17	Tuberculosis of other organs	7
18	Miliary tuberculosis	7
27	Other zoonotic bacterial diseases	3
31	Diseases due to other mycobacteria	2
36	Meningococcal infection	5
37	Tetanus	1
38	Septicemia	555
40	Other bacterial diseases	4
41	Bacterial infection in conditions claasified elsewhere and of unspecified site	15
42	Human immunodeficiency virus infection with specified conditions	426
43	Human immunodeficiency virus infection causing other specified conditions	15
44	Other human immunodeficiency virus infection	24
46	Slow virus infection of central nervous system	11
47	Meningitis due to enterovirus	1
49	Other non-arthropod-borne viral diseases of central nervous system	3
52	Chickenpox	3
53	Herpes zoster	4
54	Herpes simplex	3
70	Viral hepatitis	33
74	Specific diseases due to coxsakie virus	1
78	Other diseases due to viruses and chlamydiae	9
79	Viral infection in conditions classified elsewhere and of unspecified site	14
88	Other arthropod-borne diseases	1
93	Cardiovascular syphilis	1
111	Dermatomycosis, other and unspecified	1
112	Candidiasis	23
114	Coccidioidomycosis	1
115	Histoplasmosis	1
117	Other mycoses	33
127	Other intestinal helminthiases	2
130	Toxoplasmosis	1
135	Sarcoidosis	21
136	Other and unspecified infections and parasitic diseases	20
137	Late effects of tuberculosis	1
138	Late effect of acute poliomyelitis	12
139	Late effects of other infectious and parasitic diseases	1
	II. NEOPLASMS (140-239)	
140	Malignant neoplasm of lip	4
141	Malignant neoplasm of tongue	69
142	Malignant neoplasm of major salivary glands	21
143	Malignant neoplasm of gum	4
144	Malignant neoplasm of floor of mouth	14

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
145	Malignant neoplasm of other and unspecified parts of mouth	37
146	Malignant neoplasm of oropharynx	34
147	Malignant neoplasm of nasopharynx	23
148	Malignant neoplasm of hypopharynx	23
149	Malignant neoplasm of other and ill-defined sites within the lip, oral cavity and pharynx	44
150	Malignant neoplasm of oesophagus	366
151	Malignant neoplasm of stomach	467
152	Malignant neoplasm of small intestine, including duodenum	43
153	Malignant neoplasm of colon	1,817
154	Malignant neoplasm of rectum, rectosigmoid junction and anus	312
155	Malignant neoplasm of liver and intrahepatic bile ducts	332
156	Malignant neoplasm of gallbladder and extrahepatic bile ducts	174
157	Malignant neoplasm of pancreas	970
158	Malignant neoplasm of retroperitoneum and peritoneum	22
159	Malignant neoplasm of other and ill-defined sites within the digestive organs andperitoneum	59
160	Malignant neoplasm of nasal cavities, middle ear and accessory sinuses	30
161	Malignant neoplasm of larynx	162
162	Malignant neoplasm of trachea, bronchus and lung	5,266
163	Malignant neoplasm of pleura	15
164	Malignant neoplasm of thymus, heart and mediastinum	22
165	Malignant neoplasm of other and ill-defined sites within the respiratory system and intrathoracic organs	1
170	Malignant neoplasm of bone and articular cartilage	40
171	Malignant neoplasm of connective and other soft tissue	107
172	Malignant melanoma of skin	208
173	Other malignant neoplasm of skin	53
174	Malignant neoplasm of female breast	1,629
175	Malignant neoplasm of male breast	7
179	Malignant neoplasm of uterus, part unspecified	130
180	Malignant neoplasm of cervix uteri	149
181	Malignant neoplasm of placenta	1
182	Malignant neoplasm of body of uterus	122
183	Malignant neoplasm of ovary and other uterine adnexa	494
184	Malignant neoplasm of other and unspecified female genital organs	33
185	Malignant neoplasm of prostate	1,234
186	Malignant neoplasm of testis	20
187	Malignant neoplasm of penis and other male genital organs	9
188	Malignant neoplasm of bladder	425
189	Malignant neoplasm of kidney and other and unspecified urinary organs	389
190	Malignant neoplasm of eye	5
191	Malignant neoplasm of brain	426
192	Malignant neoplasm of other and unspecified parts of nervous system	9
193	Malignant neoplasm of thyroid gland	39
194	Malignant neoplasm of other endocrine glands and related structures	22
195	Malignant neoplasm of other and ill-defined sites	172
199	Malignant neoplasm without specification of site	1,189
200	Lymphosarcoma and reticulosarcoma	53
201	Hodgkin's disease	77
202	Other malignant neoplasm of lympoid and histiocytic tissue	740
203	Multiple myeloma and immunoproliferative neoplasms	350
204	Lymphoid leukemia	229
205	Myeloid leukemia	292

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
206	Monocytic leukemia	15
207	Other specified leukemia	7
208	Leukemia of unspecified cell type	198
211	Benign neoplasm of other parts of digestive system	3
212	Benign neoplasm of respiratory and intrathoracic organs	6
213	Benign neoplasm of bone and articular cartilage	1
214	Lipoma	1
215	Other benign neoplasm of connective and other soft tissue	2
220	Benign neoplasm of ovary	1
225	Benign neoplasm of brain and other parts of nervous system	36
227	Benign neoplasm of other endocrine glands and related structures	4
228	Haemangioma and lymphangioma, any site	3
229	Benign neoplasm of other and unspecified sites	2
230	Carcinoma in situ of digestive organs	1
231	Carcinoma in situ of respiratory system	1
235	Neoplasm of uncertain behavior of digestive and respiratory systems	6
236	Neoplasm of uncertain behavior of genitourinary organs	1
237	Neoplasm of uncertain behavior of endocrine glands and nervous system	7
238	Neoplasm of uncertain behavior of other and unspecified sites and tissues	62
239	Neoplasm of unspecified nature	79
	III. ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES AND DISORDERS (240-279)	
240	Simple and unspecified goitre	1
242	Thyrotoxicosis with or without goitre	3
244	Acquired hypothyroidism	31
250	Diabetes mellitus	2,095
251	Other disorders of pancreatic internal secretion	7
252	Disorders of parathyroid gland	4
253	Disorders of the pituitary gland and its hypothalamic control	9
255	Disorders of adrenal glands	5
259	Other endocrine disorders	3
260	Kwashiorkor	6
261	Nurtritional marasmus	10
262	Other severe protein-calorie malnutrition	2
263	Other and unspecified protein-calorie malnutrition	101
265	Ovarian dysfunction	1
269	Other nutritional deficiencies	3
270	Disorders of amino-acid transport and metabolism	6
271	Disorders of carbohydrate transport and metabolism	1
272	Diorders of lipoid metabolism	83
273	Disorders of plasma protein metabolism	14
274	Gout	1
275	Disorders of mineral metabolism	10
276	Disorders of fluid, electrolyte and acid-base balance	195
277	Other and unspecified disorders of metabolism	71
278	Obesity and other hyperalimentation	67
279	Disorders involving the immune mechanism	41
	IV. DISEASES OF BLOOD AND BLOOD-FORMING ORGANS (280-289)	
280	Iron deficiency anemias	2
281	Other deficiency anemias	8
282	Hereditary hemolytic anemias	29

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
283	Acquired hemolytic anemias	7
284	Aplastic anemia	46
285	Other and unspecified anemias	66
286	Coagulation defects	67
287	Purpura and other hemorrhagic conditions	32
288	Diseases of white blood cells	16
289	Other diseases of blood and blood-forming organs	91
	V. MENTAL DISORDERS (290-319)	
290	Senile and presenile organic psychotic conditions	282
291	Alcoholic psychoses	18
294	Other organic psychotic conditions (chronic)	2
295	Schizophrenic psychoses	14
296	Affective psychosis	1
297	Paranoid states	1
298	Other nonorganic psychoses	132
299	Psychoses with origin specific to childhood	2
300	Neurotic disorders	5
301	Personality disorders	1
303	Alcohol dependence syndrome	173
304	Drug dependence	2
305	Nondependent abuse of drugs	144
306	Physiological malfunction arising from mental factors	1
307	Special symptoms or syndromes not elsewhere classified	5
308	Acute reaction to stress	1
310	Specific nonpsychotic mental disorders following organic brain damage	158
311	Depressive disorder, not elswhere classified	9
318	Other specified mental retardation	2
319	Unspecified mental retardation	9
	VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (320-389)	
320	Bacterial meningitis	24
322	Meningitis of unspecified cause	17
323	Encephalitis, myelitis and encephalomyelitis	11
324	Intracranial and intraspinal abscess	7
325	Phlebitis and thrombophlebitis of intracranial venous sinuses	2
326	Late effects of intracranial abscess or pyogenic infection	2
330	Cerebral degenerations usually manifest in childhood	5
331	Other cerebral degenerations	410
332	Parkinson's disease	266
333	Other extrapyramidal disease and abnormal movement disorders	17
334	Spinocerebellar disease	15
335	Anterior horn cell disease	149
336	Other diseases of spinal cord	3
340	Multiple sclerosis	98
341	Other demyelinating diseases of central nervous system	3
342	Hemiplegia	5
343	Infantile cerebral palsy	33
344	Other paralytic syndromes	24
345	Epilepsy	109
348	Other conditions of brain	139
349	Other and unspecified disorders of the nervous system	11
355	Monoeuritis of lower limb	2

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
356	Hereditary and idiopathic peripheral neuropathy	20
357	Inflammatory and toxic neuropathy	5
358	Myoneural disorders	16
359	Muscular dystrophies and other myopathies	41
361	Retinal detachments and defects	1
382	Suppurative and unspecified otitis media	3
	VII. DISEASES OF THE CIRCULATORY SYSTEM (390-459)	
390	Rheumatic fever without mention of heart involvement	1
394	Diseases of mitral valve	128
395	Diseases of aortic valve	10
396	Diseases of mitral and aortic valves	40
397	Diseases of other endocardial structures	22
398	Other rheumatic heart disease	42
401	Essential hypertension	115
402	Hypertensive heart disease	678
403	Hypertensive renal disease	145
404	Hypertensive heart and renal disease	74
410	Acute myocardial infarction	9,908
411	Other acute and subacute form of ischemic heart disease	24
412	Old myocardial infarction	30
413	Angina pectoris	38
414	Other forms of chronic ischemic heart disease	9,071
415	Acute pulmonary heart disease	226
416	Chronic pulmonary heart disease	93
420	Acute pericarditis	3
421	Acute and subacute endocarditis	24
422	Acute myocarditis	18
423	Other diseases of pericardium	18
424	Other diseases of endocardium	439
425	Cardiomyopathy	902
426	Conduction disorders	22
427	Cardiac dysrhythmias	720
428	Heart failure	1,470
429	Ill-defined descriptions and complications of heart disease	3,516
430	Subarachnoid hemorrhage	277
431	Intracerebral hemorrhage	622
432	Other and unspecified intracranial hemorrhage	127
433	Occlusion and stenosis of precerebral arteries	54
434	Occlusion of cerebral arteries	795
435	Transient cerebral ischemia	8
436	Acute but ill-defined cerebrovascular disease	2,574
437	Other and ill-defined cerebrovascular disease	315
438	Late effects of cerebrovascular disease	393
440	Atherosclerosis	823
441	Aortic aneurysm	604
442	Other aneurysm	33
443	Other peripheral vascular disease	165
444	Arterial embolism and thrombosis	58
446	Polyarteritis nodosa and allied conditions	35
447	Other disorders of arteries and arterioles	45
448	Diseases of capillaries	3
451	Phlebitis and thrombophlebitis	65

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
452	Portal vein thrombosis	1
453	Other venous embolism and thrombosis	19
454	Varicose veins of lower extremities	8
455	Haemorrhoids	1
456	Varicose veins of other sites	10
457	Noninfective disorders of lymphatic channels	4
458	Hypotension	26
459	Other disorders of circulatory system	28
	VIII. DISEASES OF THE RESPIRATORY SYSTEM (460-519)	
462	Acute pharyngitis	3
464	Acute laryngitis and tracheitis	2
465	Acute upper respiratory infections of multiple or unspecified sites	5
466	Acute bronchitis and bronchiolitis	17
473	Chronic sinusitis	5
475	Peritonsillar abscess	1
478	Other diseases of upper respiratory tract	7
480	Viral pneumonia	19
481	Pneumococcal pneumonia	56
482	Other bacterial pneumonia	83
483	Pneumonia due to other specified organism	6
485	Bronchopneumonia, organism unspecified	146
486	Pneumonia, organism unspecified	2,416
487	Influenza	47
490	Bronchitis, not specified as acute or chronic	14
491	Chronic bronchitis	118
492	Emphysema	744
493	Asthma	179
494	Bronchiectasis	20
496	Chronic airways obstruction, not elsewhere classified	2,042
500	Coalworkers' pneumoconiosis	4
501	Asbestosis	7
502	Pneumoconiosis due to other silica or silicates	5
505	Pneumoconiosis, unspecified	3
506	Respiratory conditions due to chemical fumes and vapors	2
507	Pneumonitis due to solids and liquids	242
508	Respiratory conditions due to other and unspecified external agents	2
510	Empyema	21
511	Pleurisy	27
512	Pneumothorax	10
513	Abscess of lung and mediastinum	13
514	Pulmonary congestion and hypostasis	29
515	Postinflammatory pulmonary fibrosis	232
516	Other alveolar and parietoalveolar pneumopathy	23
518	Other diseases of lung	171
519	Other diseases of respiratory system	24
	IX. DISEASES OF THE DIGESTIVE SYSTEM (520-579)	
520	Disorders of tooth developement and eruption	1
522	Diseases of pulp and periapical tissues	2
526	Diseases of the jaw	1
527	Diseases of the salivary glands	2
528	Diseases of the oral soft tissues, excluding lesions specific for gingiva and tongue	2

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
530	Diseases of oesophagus	47
531	Gastric ulcer	80
532	Duodenal ulcer	67
533	Peptic ulcer, site unspecified	79
534	Gastrojejunal ulcer	2
535	Gastritis and duodenitis	39
536	Disorders of function of stomach	3
537	Other disorders of stomach and duodenum	11
540	Acute appendicitis	14
541	Appendicitis, unqualified	1
550	Inguinal hernia	8
551	Other hernia of abdominal cavity, with gangrene	6
552	Other hernia of abdominal cavity with obstruction, without mention of gangrene	22
553	Other hernia of abdominal cavity without mention of obstruction or gangrene	14
555	Regional enteritis	15
556	Idiopathic proctocolitis	10
557	Vascular insufficiency of intestine	242
558	Other noninfective gastroenteritis and colitis	35
560	Intestinal obstruction without mention of hernia	172
562	Diverticula of intestine	114
564	Functional digestive disorders, not elsewhere classified	7
566	Abscess of anal and rectal regions	9
567	Peritonitis	60
568	Other disorders of peritoneum	5
569	Other disorders of intestine	66
570	Acute and subacute necrosis of liver	11
571	Chronic liver disease and cirrhosis	1,060
572	Liver abscess and sequelae of chronic liver disease	132
573	Other disorders of liver	71
574	Cholelithiasis	38
575	Other disorders of gallbladder	56
576	Other disorders of biliary tract	43
577	Diseases of pancreas	114
578	Gastrointestinal hemorrhage	238
579	Intestinal malabsorption	6
	X. DISEASES OF THE GENITOURINARY SYSTEM (580-629)	
580	Acute glomerulonephritis	2
581	Nephrotic syndrome	14
582	Chronic glomerulonephritis	33
583	Nephritis and nephropathy, not specified as acute or chronic	9
584	Acute renal failure	136
585	Chronic renal failure	214
586	Renal failure, unspecified	388
587	Renal sclerosis, unspecified	4
590	Infections of kidney	36
591	Hydronephrosis	2
592	Calculus of kidney and ureter	9
593	Other disorders of kidney and ureter	100
594	Calculus of lower urinary tract	2
595	Cystitis	7
596	Other disorders of bladder	8
598	Urethral stricture	2

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
599	Other disorders of urethra and urinary tract	439
600	Hyperplasia of prostate	18
601	Inflammatory diseases of prostrate	2
602	Other disorders of prostate	7
608	Other disorders of male genital organs	6
611	Other disorders of breast	1
619	Fistulae involving female genital tract	2
620	Noninflammatory disorders of ovary, fallopian tube and broad ligament	1
622	Noninflammatory disorders of cervix	1
	XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM (630-676)	
633	Ectopic pregnancy	4
634	Spontaneous abortion	1
635	Legally induced abortion	1
641	Antepartum hemorrhage, abruptio placentae, and placenta praevia	1
642	Hypertension complicating pregnancy, childbirth and the puerperium	4
648	Other current conditions in the mother classified elsewhere but complicating pregnancy, childbirth and the puerperium	1
669	Other complications of labor and delivery, not elsewhere classified	1
673	Obstetrical pulmonary embolism	2
674	Other and unspecified complications of the puerperium, not elsewhere classified	1
	XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (680-709)	
682	Other cellulitis and abscess	39
686	Other local infections of skin and subcutaneous tissue	4
692	Contact dermatitis and other eczema	2
694	Bullous dermatoses	4
695	Erythematous conditions	4
707	Chronic ulcer of skin	88
	XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (710-739)	
710	Diffuse diseases of connective tissue	103
711	Arthropathy associated with infections	9
714	Rheumatoid arthritis and other inflammatory polyarthropethies	55
715	Osteoarthrosis and allied disorders	19
716	Other and unspecified arthropathies	8
719	Other and unspecified disorder of joint	1
720	Ankylosing spondylitis and other inflammatory spondylopathies	2
721	Spondylosis and allied disorders	3
722	Intervertebral disc disorders	2
723	Other disorders of cervical region	1
724	Other and unspecified disorders of back	1
725	Polymyalgia rheumatica	5
727	Other disorders of synovium, tendon and bursa	2
728	Disorders of muscle, ligament and fascia	10
729	Other disorders of soft tissues	10
730	Osteomyelitis, periostitis and other infections involving bone	24
731	Osteitis deformans and osteopathies associated with other disorders classified elsewhere	2
733	Other disorders of bone and cartilage	28

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
737	Curvature of spine	10
738	Other acquired deformity	1
	XIV. CONGENITAL ANOMALIES (740-759)	
740	Anencephalus and similar anomalies	20
741	Spina bifida	3
742	Other congenital anomalies of nervous system	43
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	36
746	Other congenital anomalies of heart	115
747	Other congenital anomalies of circulatory system	41
748	Congenital anomalies of respiratory system	40
749	Cleft palate and cleft lip	1
750	Other congenital anomalies of upper alimentary tract	1
751	Other congenital anomalies of digestive system	9
753	Congenital anomalies of urinary system	30
756	Other congenital musculoskeletal anomalies	28
757	Congenital anomalies of the integument	1
758	Chromosomal anomalies	49
759	Other and unspecified congenital anomalies	22
	XV. CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (760-779)	
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	7
761	Fetus or newborn affected by maternal complications of pregnancy	90
762	Fetus or newborn affected by complications of placenta, cord and membranes	33
763	Fetus or newborn affected by other complications of labour and delivery	2
765	Disorders relating to short gestation and unspecified low birthweight	279
767	Birth trauma	9
768	Intrauterine hypoxia and birth asphyxia	21
769	Respiratory distress syndrome	158
770	Other respiratory conditions of fetus and newborn	117
771	Infections specific to the perinatal period	32
772	Fetal and neonatal hemorrhage	9
773	Hemolytic disease of fetus or newborn, due to isoimmunization	2
774	Other perinatal jaundice	1
775	Endocrine and metabolic disturbances specific to the fetus and newborn	1
776	Hematological disorders of fetus and newborn	3
777	Perinatal disorders of digestive system	14
778	Conditions involving the integument and temperature regulation of fetus and newborn	7
779	Other and ill-defined conditions originating in the perinatal period	38
	XVI. SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS (780-799)	
780	General symptoms	9
781	Symptoms involving nervous and musculoskeletal systems	2
783	Symptoms concerning nutrition, metabolism and development	2
784	Symptoms involving head and neck	1
785	Symptoms involving cardiovascular system	18
786	Symptoms involving respiratory system and other chest symptoms	5
789	Other symptoms involving abdomen and pelvis	1
797	Senility without mention of psychosis	11

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause Of Death	Number
798	Sudden death, cause unknown	254
799	Other ill-defined and unknown causes of morbidity and mortality	84
	XVII. EXTERNAL CAUSES OF INJURY AND POISONING (E800-E999)	
E805	Hit by rolling stock	16
E810	Motor vehicle traffic accident involving collision with train	17
E812	Other motor vehicle traffic accident involving collision with another motor vehicle	661
E813	Motor vehicle traffic accident involving collision with other vehicle	29
E814	Motor vehicle traffic accident involving collision with pedestrian	204
E815	Other motor vehicle traffic accident involving collision on the highway	208
E816	Motor vehicle traffic accident due to loss of control, without collision on the highway	253
E818	Other noncollision motor vehicle traffic accident	22
E819	Motor vehicle traffic accident of unspecified nature	70
E820	Nontraffic accident involving motor-driven snow vehicle	6
E821	Nontraffic accident involving other off-road motor vehicle	5
E822	Other motor vehicle nontraffic accident involving collision with moving object	12
E823	Other motor vehicle nontraffic accident involving collision with stationary object	4
E825	Other motor vehicle nontraffic accident of other and unspecified nature	3
E826	Pedal cycle accident	1
E828	Accident involving animal being ridden	3
E830	Accident to watercraft causing submersion	21
E831	Accident to watercraft causing other injury	3
E832	Other accidental submersion or drowning in water transport accident	10
E837	Explosion, fire or burning in watercraft	1
E838	Other and unspecified water transport accident	4
E841	Accident to powered aircraft, other and unspecified	24
E842	Accident to unpowered aircraft	2
E844	Other specified air transport accidents	1
E848	Accidents involving other vehicles not elsewhere classifiable	2
E850	Accidental poisoning by analgesics, antipyretics, antirheumatics	16
E853	Accidental poisoning by tranquillizers	1
E854	Accidental poisoning by other psychotropic agents	8
E855	Accidental poisoning by other drugs acting on central and autonomic nervous systems	15
E856	Accidental poisoning by antibiotics	3
E858	Accidental poisoning by other drugs	46
E860	Accidental poisoning by alcohol, not elsewhere classified	10
E862	Accidental poisoning by petroleum products, other solvents and their vapours, not elsewhere classified	1
E866	Accidental poisoning by other and unspecified solid and liquid substances	3
E868	Accidental poisoning by other utility gas and other carbon monoxide	33
E869	Accidental poisoning by other gases and vapors	2
E870	Accidental cut, puncture, perforation or hemorrhage during medical care	10
E873	Failure in dosage	1
E875	Contaminated or infected blood, other fluid, drug or biological substance	1
E876	Other and unspecified misadventures during medical care	6
E878	Surgical operation and other surgical procedures as the cause of abnormal reaction of patient, or of later complication, without mention of midadventure at the time of procedure	53
E879	Other procedures, without mention of misadventure at the time of procedure, as the cause of abnormal reaction of patient, or of misadventure at the time of	

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
	procedure	25
E880	Fall on or from stairs or steps	64
E881	Fall on or from ladders or scaffolding	15
E882	Fall from or out of building or other structure	12
E883	Fall into hole or other opening in surface	6
E884	Other fall from one level to another	20
E885	Fall on same level from slipping, tripping or stumbling	21
E887	Fracture, cause unspecified	163
E888	Other and unspecified fall	176
E890	Conflagration in private dwelling	151
E891	Conflagration in other and unspecified building or structure	2
E893	Accident caused by ignition of clothing	5
E894	Ignition of highly inflammable material	2
E895	Accident caused by controlled fire in private dwelling	1
E898	Accident caused by other specified fire and flames	2
E899	Accident caused by unspecified fire	10
E900	Excessive heat	5
E901	Excessive cold	24
E904	Hunger, thirst, exposure, neglect	9
E905	Venomous animals and plants as the cause of poisoning and toxic reactions	3
E906	Other injury caused by animals	3
E907	Lightning	2
E910	Accidental drowning and submersion	106
E911	Inhalation and ingestion of food causing obstruction of respiratory tract or suffocation	55
E912	Inhalation and ingestion of other object causing obstruction of resiratory tract or suffocation	58
E913	Accidental mechanical suffocation	42
E915	Foreign body accidentally entering other orifice	2
E916	Struck accidentally by falling object	26
E917	Striking against or struck accidentally by objects or persons	4
E918	Caught accidentally in or between objects	4
E919	Accidents caused by machinery	41
E920	Accidents caused by cutting and piercing instruments or objects	6
E921	Accident caused by explosion of pressure vessel	1
E922	Accident caused by firearm missile	27
E923	Accident caused by explosive material	6
E924	Accident caused by hot substance or object, caustic or corrosive material and steam	6
E925	Accident caused by electric current	20
E928	Other and unspecified environmental and accidental causes	62
E929	Late effects of accidental injury	26
E930	Antibiotics	1
E932	Hormones and synthetic substitutes	1
E938	Other central nervous system depressants	1
E947	Other and unspecified drugs and medicaments	4
E950	Suicide and selfinflicted poisoning by solid or liquid substance	126
E951	Suicide and selfinflicted poisoning by gases in domestic use	2
E952	Suicide and selfinflicted poisoning by other gases and vapors	111
E953	Suicide and selfinflicted injury by hanging, strangulation and suffocation	178
E954	Suicide and selfinflicted injury by submersion (drowning)	13
E955	Suicide and selfinflicted injury by firearms and explosives	659
E956	Suicide and selfinflicted injury by cutting and piercing instrument	15

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1991 (continued)

ICD List Number	Cause of Death	Number
E957	Suicide and selfinflicted injuries by jumping from high place	12
E958	Suicide and selfinflicted injury by other and unspecified means	23
E960	Fight, brawl, rape	5
E962	Assault by poisoning	3
E963	Assault by hanging and strangulation	38
E964	Assault by submersion (drowning)	1
E965	Assault by firearms and explosives	783
E966	Assault by cutting and piercing instrument	157
E967	Child battering and other maltreatment	15
E968	Assault by other and unspecified means	123
E969	Late effects of injury purposely inflicted by other persons	4
E970	Injury due to legal intervention by firearms	9
E980	Poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted	88
E981	Poisoning by gases in domestic use, undetermined whether accidentally or purposely inflicted	1
E982	Poisoning by other gases, undetermined whether accidentally or purposely inflicted	4
E983	Hanging, strangulation or suffocation, undetermined whether accidentally or purposely inflicted	3
E984	Submersion (drowning), undetermined whether accidentally or purposely inflicted	2
E985	Injury by firearms and explosives, undetermined whether accidentally or purposely inflicted	11
E986	Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted	1
E987	Falling from high place, undetermined whether accidentally or purposely inflicted	1
E988	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	10
E989	Late effects of injury due to war operations	1
999	Unknown	1

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.17
Population Changes by County
Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Michigan	9,262,078	9,295,297	33,219	0.4	623,126	-589,907
Alcona	9,740	10,145	405	4.2	-262	667
Alger	9,225	8,972	-253	-2.7	101	-354
Allegan	81,555	90,509	8,954	11.0	7,426	1,528
Alpena	32,315	30,605	-1,710	-5.3	1,322	-3,032
Antrim	16,194	18,185	1,991	12.3	472	1,519
Arenac	14,706	14,931	225	1.5	510	-285
Baraga	8,484	7,954	-530	-6.2	71	-601
Barry	45,781	50,057	4,276	9.3	3,188	1,088
Bay	119,881	111,723	-8,158	-6.8	7,139	-15,297
Benzie	11,205	12,200	995	8.9	368	627
Berrien	171,276	161,378	-9,898	-5.8	10,362	-20,260
Branch	40,188	41,502	1,314	3.3	2,540	-1,226
Calhoun	141,557	135,982	-5,575	-3.9	7,550	-13,125
Cass	49,499	49,477	-22	-0.0	2,269	-2,291
Charlevoix	19,907	21,468	1,561	7.8	1,272	289
Cheboygan	20,649	21,398	749	3.6	817	-68
Chippewa	29,029	34,604	5,575	19.2	1,061	4,514
Clare	23,822	24,952	1,130	4.7	717	413
Clinton	55,893	57,883	1,990	3.6	4,969	-2,979
Crawford	9,465	12,260	2,795	29.5	681	2,114
Delta	38,947	37,780	-1,167	-3.0	1,711	-2,878
Dickinson	25,341	26,831	1,490	5.9	592	898
Eaton	88,337	92,879	4,542	5.1	6,420	-1,878
Emmet	22,992	25,040	2,048	8.9	1,297	751
Genesee	450,449	430,459	-19,990	-4.4	35,448	-55,438
Gladwin	19,957	21,896	1,939	9.7	746	1,193
Gogebic	19,686	18,052	-1,634	-8.3	-664	-970
Grand Traverse	54,899	64,273	9,374	17.1	4,701	4,673
Gratiot	40,448	38,982	-1,466	-3.6	1,751	-3,217
Hillsdale	42,071	43,431	1,360	3.2	2,542	-1,182
Houghton	37,872	35,446	-2,426	-6.4	546	-2,972
Huron	36,459	34,951	-1,508	-4.1	1,416	-2,924
Ingham	275,520	281,912	6,392	2.3	27,424	-21,032
Ionia	51,815	57,024	5,209	10.1	4,682	527
Iosco	28,349	30,209	1,860	6.6	2,783	-923
Iron	13,635	13,175	-460	-3.4	-520	60
Isabella	54,110	54,624	514	0.9	3,866	-3,352
Jackson	151,495	149,756	-1,739	-1.1	8,650	-10,389
Kalamazoo	212,378	223,411	11,033	5.2	17,186	-6,153
Kalkaska	10,952	13,497	2,545	23.2	1,046	1,499

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.17 (continued)

Population Changes by County

Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Kent	444,506	500,631	56,125	12.6	52,147	3,978
Keweenaw	1,963	1,701	-262	-13.3	-168	-94
Lake	7,711	8,583	872	11.3	-119	991
Lapeer	70,038	74,768	4,730	6.8	5,764	-1,034
Leelanau	14,007	16,527	2,520	18.0	813	1,707
Lenawee	89,948	91,476	1,528	1.7	5,769	-4,241
Livingston	100,289	115,645	15,356	15.3	8,348	7,008
Luce	6,659	5,763	-896	-13.5	106	-1,002
Mackinac	10,178	10,674	496	4.9	212	284
Macomb	694,600	717,400	22,800	3.3	42,528	-19,728
Manistee	23,019	21,265	-1,754	-7.6	64	-1,818
Marquette	74,101	70,887	-3,214	-4.3	6,410	-9,624
Mason	26,365	25,537	-828	-3.1	821	-1,649
Mecosta	36,961	37,308	347	0.9	1,945	-1,598
Menominee	26,201	24,920	-1,281	-4.9	643	-1,924
Midland	73,578	75,651	2,073	2.8	6,559	-4,486
Missaukee	10,009	12,147	2,138	21.4	830	1,308
Monroe	134,659	133,600	-1,059	-0.8	9,310	-10,369
Montcalm	47,555	53,059	5,504	11.6	3,532	1,972
Montmorency	7,492	8,936	1,444	19.3	-178	1,622
Muskegon	157,589	158,983	1,394	0.9	11,806	-10,412
Newaygo	34,917	38,202	3,285	9.4	2,660	625
Oakland	1,011,793	1,083,592	71,799	7.1	70,700	1,099
Oceana	22,002	22,454	452	2.1	1,630	-1,178
Ogemaw	16,436	18,681	2,245	13.7	497	1,748
Ontonagon	9,861	8,854	-1,007	-10.2	-53	-954
Osceola	18,928	20,146	1,218	6.4	1,182	36
Oscoda	6,858	7,842	984	14.3	132	852
Otsego	14,993	17,957	2,964	19.8	1,094	1,870
Ottawa	157,174	187,768	30,594	19.5	18,445	12,149
Presque Isle	14,267	13,743	-524	-3.7	237	-761
Roscommon	16,374	19,776	3,402	20.8	-282	3,684
Saginaw	228,059	211,946	-16,113	-7.1	16,935	-33,048
St. Clair	138,802	145,607	6,805	4.9	8,131	-1,326
St. Joseph	56,083	58,913	2,830	5.0	4,053	-1,223
Sanilac	40,789	39,928	-861	-2.1	1,728	-2,589
Schoolcraft	8,575	8,302	-273	-3.2	75	-348
Shiawassee	71,140	69,770	-1,370	-1.9	5,135	-6,505
Tuscola	56,961	55,498	-1,463	-2.6	3,556	-5,019
Van Buren	66,814	70,060	3,246	4.9	4,456	-1,210
Washtenaw	264,748	282,937	18,189	6.9	24,432	-6,243
Wayne	2,337,891	2,111,687	-226,204	-9.7	125,631	-351,835
Wexford	25,102	26,360	1,258	5.0	1,513	-255

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.18

Population by Age, Race and Sex

Michigan Residents, 1990

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	151,264	77,293	73,971	117,554	60,148	57,406	30,509	15,485	15,024	3,201	1,660	1,541
1 - 4	562,314	287,431	274,883	451,685	231,530	220,155	97,872	49,425	48,447	12,757	6,476	6,281
5 - 9	690,138	353,390	336,748	563,744	289,687	274,057	110,882	55,907	54,975	15,512	7,796	7,716
10 - 14	665,572	340,578	324,994	538,400	276,544	261,856	112,536	56,705	55,831	14,636	7,329	7,307
15 - 19	700,201	355,970	344,231	559,748	285,917	273,831	124,685	61,948	62,737	15,768	8,105	7,663
20 - 24	706,575	350,511	356,064	582,768	291,766	291,002	108,740	51,000	57,740	15,067	7,745	7,322
25 - 29	764,264	376,664	387,600	643,267	321,201	322,066	105,333	47,685	57,648	15,664	7,778	7,886
30 - 34	810,420	396,830	413,590	684,362	339,708	344,654	110,752	49,548	61,204	15,306	7,574	7,732
35 - 39	744,802	365,839	378,963	629,710	314,084	315,626	101,410	45,263	56,147	13,682	6,492	7,190
40 - 44	657,391	323,122	334,269	559,969	278,811	281,158	85,094	38,684	46,410	12,328	5,627	6,701
45 - 49	520,093	255,767	264,326	449,915	223,189	226,726	61,234	28,210	33,024	8,944	4,368	4,576
50 - 54	424,090	206,548	217,542	370,209	182,001	188,208	47,415	21,225	26,190	6,466	3,322	3,144
55 - 59	391,190	187,237	203,953	341,312	164,924	176,388	45,439	20,173	25,266	4,439	2,140	2,299
60 - 64	402,882	190,640	212,242	354,333	169,056	185,277	44,987	20,025	24,962	3,562	1,559	2,003
65 - 69	367,805	165,700	202,105	324,623	146,694	177,929	40,537	17,845	22,692	2,645	1,161	1,484
70 - 74	286,418	121,055	165,363	255,812	108,354	147,458	28,886	12,012	16,874	1,720	689	1,031
75 - 79	211,919	82,719	129,200	189,989	74,292	115,697	20,784	7,968	12,816	1,146	459	687
80 - 84	132,789	45,870	86,919	120,528	41,357	79,171	11,628	4,223	7,405	633	290	343
85 +	105,170	29,566	75,604	95,138	26,289	68,849	9,643	3,125	6,518	389	152	237
Total	9,295,297	4,512,730	4,782,567	7,833,066	3,825,552	4,007,514	1,298,366	606,456	691,910	163,865	80,722	83,143

Source: The United States Bureau of the Census, 1990 Census of Population.

Table 4.19

Abridged Life Table

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.01027	100,000	1,027	99,098	7,489,366	74.894
01-05	0.00213	98,973	210	395,362	7,390,268	74.670
05-10	0.00104	98,762	102	493,531	6,994,906	70.826
10-15	0.00133	98,660	130	493,048	6,501,375	65.897
15-20	0.00462	98,530	455	491,590	6,008,327	60.980
20-25	0.00520	98,075	510	489,113	5,516,737	56.250
25-30	0.00533	97,565	520	486,558	5,027,624	51.531
30-35	0.00675	97,046	655	483,673	4,541,066	46.793
35-40	0.00942	96,391	908	479,801	4,057,393	42.093
40-45	0.01266	95,483	1,209	474,577	3,577,592	37.468
45-50	0.01890	94,275	1,782	467,244	3,103,015	32.915
50-55	0.02990	92,493	2,765	456,043	2,635,772	28.497
55-60	0.04606	89,728	4,132	438,992	2,179,728	24.293
60-65	0.07049	85,596	6,034	413,808	1,740,736	20.337
65-70	0.10695	79,563	8,509	377,625	1,326,928	16.678
70-75	0.15813	71,054	11,236	328,357	949,303	13.360
75-80	0.23664	59,818	14,155	264,563	620,946	10.381
80-85	0.33641	45,663	15,361	189,724	356,383	7.805
85+	1.00000	30,302	30,302	166,659	166,659	5.500

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.20

Abridged Life Table for Males

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.01172	100,000	1,172	98,975	7,167,146	71.671
01-05	0.00219	98,828	216	394,772	7,068,170	71.520
05-10	0.00109	98,612	107	492,765	6,673,399	67.673
10-15	0.00194	98,505	191	492,163	6,180,634	62.745
15-20	0.00677	98,314	665	490,036	5,688,470	57.860
20-25	0.00826	97,649	806	486,248	5,198,435	53.236
25-30	0.00773	96,843	748	482,364	4,712,187	48.658
30-35	0.00933	96,095	896	478,326	4,229,823	44.017
35-40	0.01238	95,199	1,178	473,186	3,751,497	39.407
40-45	0.01640	94,021	1,542	466,468	3,278,311	34.868
45-50	0.02403	92,479	2,222	457,216	2,811,842	30.405
50-55	0.03705	90,257	3,343	443,490	2,354,626	26.088
55-60	0.05663	86,914	4,922	423,091	1,911,137	21.989
60-65	0.08914	81,992	7,308	392,767	1,488,046	18.149
65-70	0.13511	74,684	10,090	349,389	1,095,279	14.666
70-75	0.20188	64,594	13,040	291,559	745,890	11.547
75-80	0.30650	51,554	15,801	218,741	454,330	8.813
80-85	0.42846	35,753	15,318	139,547	235,589	6.589
85+	1.00000	20,434	20,434	96,042	96,042	4.700

[1] Definitions of life table values are contained in the Technical Notes.
Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.21

Abridged Life Table for Females

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.00876	100,000	876	99,227	7,796,337	77.963
01-05	0.00207	99,124	205	395,979	7,697,110	77.651
05-10	0.00098	98,919	97	494,330	7,301,131	73.809
10-15	0.00068	98,822	67	493,974	6,806,801	68.879
15-20	0.00240	98,756	236	493,218	6,312,826	63.924
20-25	0.00218	98,519	214	492,072	5,819,609	59.071
25-30	0.00299	98,305	294	490,833	5,327,537	54.194
30-35	0.00428	98,011	419	489,081	4,836,704	49.349
35-40	0.00656	97,593	639	486,459	4,347,623	44.549
40-45	0.00903	96,953	875	482,723	3,861,163	39.825
45-50	0.01391	96,078	1,336	477,322	3,378,440	35.163
50-55	0.02306	94,742	2,185	468,667	2,901,118	30.621
55-60	0.03625	92,557	3,355	454,936	2,432,450	26.281
60-65	0.05346	89,202	4,768	434,856	1,977,515	22.169
65-70	0.08325	84,434	7,029	405,617	1,542,659	18.271
70-75	0.12477	77,405	9,657	364,083	1,137,042	14.689
75-80	0.18873	67,748	12,786	308,002	772,959	11.409
80-85	0.28277	54,962	15,541	236,314	464,957	8.460
85+	1.00000	39,421	39,421	228,642	228,642	5.800

[1] Definitions of life table values are contained in the Technical Notes.
Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.22

Abridged Life Table for Whites

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.00730	100,000	730	99,359	7,605,386	76.054
01-05	0.00186	99,270	184	396,624	7,506,026	75.612
05-10	0.00098	99,086	97	495,163	7,109,402	71.750
10-15	0.00122	98,989	120	494,698	6,614,240	66.818
15-20	0.00358	98,869	354	493,512	6,119,542	61.896
20-25	0.00378	98,515	372	491,656	5,626,030	57.108
25-30	0.00413	98,143	405	489,733	5,134,373	52.315
30-35	0.00531	97,738	519	487,454	4,644,640	47.521
35-40	0.00712	97,219	692	484,462	4,157,187	42.761
40-45	0.01004	96,528	969	480,397	3,672,724	38.048
45-50	0.01625	95,559	1,553	474,231	3,192,327	33.407
50-55	0.02646	94,007	2,487	464,300	2,718,096	28.914
55-60	0.04239	91,520	3,879	448,592	2,253,797	24.626
60-65	0.06621	87,641	5,803	424,623	1,805,205	20.598
65-70	0.10166	81,838	8,319	389,530	1,380,582	16.870
70-75	0.15322	73,519	11,264	340,715	991,052	13.480
75-80	0.23250	62,255	14,474	276,056	650,337	10.446
80-85	0.33297	47,781	15,909	198,989	374,281	7.833
85+	1.00000	31,871	31,871	175,293	175,293	5.500

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.23

Abridged Life Table for White Males

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.00836	100,000	836	99,269	7,308,465	73.085
01-05	0.00182	99,164	180	396,211	7,209,195	72.700
05-10	0.00097	98,984	96	494,657	6,812,984	68.829
10-15	0.00174	98,888	172	494,092	6,318,327	63.894
15-20	0.00479	98,717	472	492,487	5,824,235	58.999
20-25	0.00580	98,245	569	489,820	5,331,748	54.270
25-30	0.00575	97,676	561	487,005	4,841,928	49.571
30-35	0.00731	97,115	709	483,869	4,354,923	44.843
35-40	0.00923	96,405	889	479,909	3,871,054	40.154
40-45	0.01273	95,516	1,216	474,755	3,391,145	35.503
45-50	0.02031	94,300	1,915	467,088	2,916,390	30.927
50-55	0.03258	92,385	3,010	454,965	2,449,302	26.512
55-60	0.05167	89,375	4,618	436,192	1,994,337	22.314
60-65	0.08421	84,757	7,137	407,069	1,558,145	18.384
65-70	0.12903	77,620	10,015	364,348	1,151,076	14.830
70-75	0.19672	67,606	13,299	306,125	786,728	11.637
75-80	0.30315	54,307	16,463	230,978	480,603	8.850
80-85	0.42771	37,844	16,186	147,833	249,625	6.596
85+	1.00000	21,658	21,658	101,792	101,792	4.700

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.24

Abridged Life Table for White Females

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.00618	100,000	618	99,454	7,884,030	78.840
01-05	0.00191	99,382	189	397,056	7,784,576	78.330
05-10	0.00099	99,192	98	495,692	7,387,520	74.477
10-15	0.00067	99,095	66	495,335	6,891,828	69.548
15-20	0.00232	99,028	229	494,590	6,396,493	64.593
20-25	0.00176	98,799	173	493,566	5,901,903	59.737
25-30	0.00252	98,626	248	492,542	5,408,337	54.837
30-35	0.00334	98,378	328	491,122	4,915,794	49.968
35-40	0.00502	98,050	491	489,105	4,424,672	45.127
40-45	0.00736	97,559	718	486,146	3,935,567	40.340
45-50	0.01224	96,842	1,185	481,504	3,449,421	35.619
50-55	0.02051	95,656	1,961	473,789	2,967,917	31.027
55-60	0.03363	93,695	3,150	461,127	2,494,127	26.620
60-65	0.04952	90,545	4,483	442,269	2,033,001	22.453
65-70	0.07853	86,062	6,758	414,464	1,590,731	18.484
70-75	0.11994	79,304	9,512	374,008	1,176,268	14.832
75-80	0.18388	69,793	12,833	318,200	802,260	11.495
80-85	0.27821	56,959	15,847	245,605	484,060	8.498
85+	1.00000	41,113	41,113	238,455	238,455	5.800

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.25

Abridged Life Table for Blacks

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.02239	100,000	2,239	98,031	6,818,824	68.188
01-05	0.00343	97,761	335	390,179	6,720,793	68.747
05-10	0.00145	97,426	140	486,744	6,330,613	64.979
10-15	0.00191	97,286	186	486,127	5,843,870	60.069
15-20	0.00955	97,100	927	483,399	5,357,743	55.178
20-25	0.01280	96,173	1231	477,852	4,874,343	50.683
25-30	0.01298	94,942	1,232	471,680	4,396,492	46.307
30-35	0.01556	93,711	1,458	465,116	3,924,812	41.882
35-40	0.02409	92,253	2,222	455,983	3,459,696	37.502
40-45	0.03063	90,032	2,758	443,506	3,003,713	33.363
45-50	0.03880	87,274	3,386	428,313	2,560,207	29.335
50-55	0.05625	83,888	4,718	408,164	2,131,893	25.414
55-60	0.07430	79,170	5,882	381,741	1,723,729	21.773
60-65	0.10345	73,288	7,581	348,301	1,341,988	18.311
65-70	0.14893	65,707	9,785	304,847	993,687	15.123
70-75	0.20209	55,922	11,301	251,843	688,840	12.318
75-80	0.27177	44,621	12,126	192,950	436,997	9.794
80-85	0.37189	32,494	12,084	131,790	244,047	7.510
85+	1.00000	20,410	20,410	112,256	112,256	5.500

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.26

Abridged Life Table for Black Males

Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.02551	100,000	2,551	97,762	6,343,628	63.436
01-05	0.00404	97,449	393	388,788	6,245,865	64.094
05-10	0.00179	97,055	173	484,800	5,857,077	60.348
10-15	0.00300	96,882	290	483,977	5,372,277	55.452
15-20	0.01635	96,592	1,579	479,392	4,888,300	50.608
20-25	0.02231	95,013	2,119	469,850	4,408,908	46.403
25-30	0.02138	92,894	1,985	459,499	3,939,057	42.404
30-35	0.02306	90,908	2,096	449,530	3,479,558	38.276
35-40	0.03477	88,812	3,088	436,686	3,030,028	34.117
40-45	0.04378	85,724	3,753	419,519	2,593,341	30.252
45-50	0.05405	81,971	4,430	399,211	2,173,822	26.519
50-55	0.07495	77,541	5,811	373,704	1,774,611	22.886
55-60	0.09687	71,730	6,948	341,815	1,400,907	19.530
60-65	0.12925	64,782	8,373	303,698	1,059,092	16.349
65-70	0.18440	56,409	10,402	256,690	755,394	13.391
70-75	0.24954	46,008	11,480	201,582	498,704	10.840
75-80	0.33527	34,527	11,576	143,423	297,122	8.605
80-85	0.44278	22,952	10,163	88,474	153,699	6.697
85+	1.00000	12,789	12,789	65,225	65,225	5.100

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Table 4.27

Abridged Life Table for Black Females

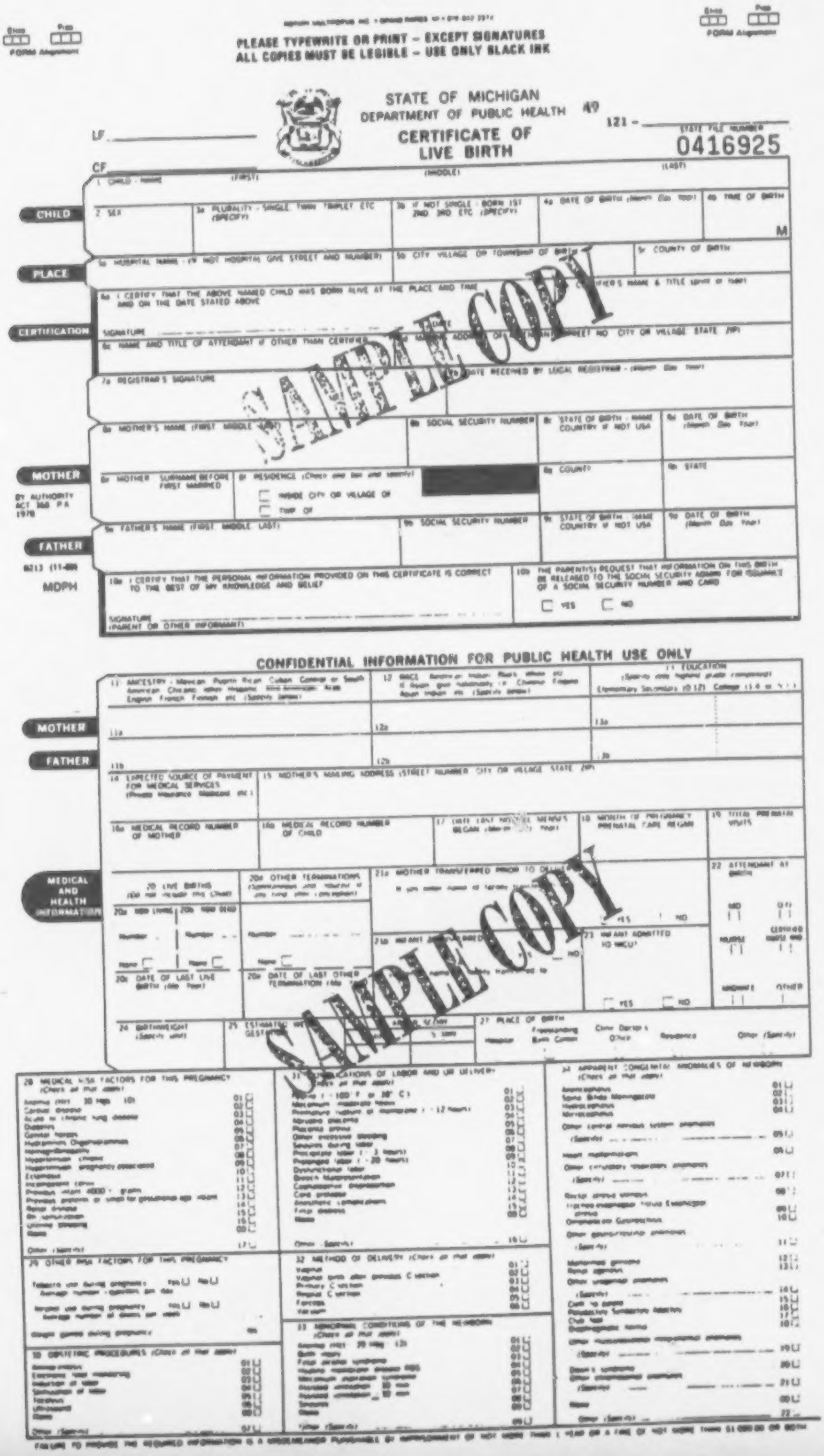
Michigan Residents, 1991

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
00-01	0.01917	100,000	1,917	98,311	7,281,410	72.814
01-05	0.00281	98,083	275	391,613	7,183,100	73.235
05-10	0.00110	97,808	107	488,746	6,791,487	69.437
10-15	0.00081	97,701	79	488,343	6,302,741	64.510
15-20	0.00279	97,622	272	487,503	5,814,398	59.560
20-25	0.00433	97,350	421	485,764	5,326,895	54.719
25-30	0.00597	96,930	579	483,304	4,841,131	49.945
30-35	0.00944	96,351	909	479,667	4,357,827	45.229
35-40	0.01539	95,442	1,468	473,731	3,878,160	40.634
40-45	0.01954	93,973	1,836	465,463	3,404,429	36.228
45-50	0.02559	92,138	2,357	455,176	2,938,966	31.898
50-55	0.04083	89,780	3,665	440,250	2,483,790	27.665
55-60	0.05589	86,115	4,812	419,174	2,043,540	23.730
60-65	0.08222	81,303	6,684	390,668	1,624,366	19.979
65-70	0.12004	74,619	8,957	351,589	1,233,698	16.533
70-75	0.16668	65,662	10,944	301,699	882,108	13.434
75-80	0.22958	54,717	12,562	242,782	580,409	10.607
80-85	0.32787	42,155	13,821	176,123	337,628	8.009
85+	1.00000	28,334	28,334	161,505	161,505	5.700

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Center for Health Statistics, MDPH

Figure 4.2



PLEASE TYPEWRITE OR PRINT – EXCEPT SIGNATURES
ALL COPIES MUST BE LEGIBLE – USE ONLY BLACK INK

STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH 49

CERTIFICATE OF
LIVE BIRTH

LF. ______
CF. ______

121 - ______ STATE FILE NUMBER

0416925

CHILD

1 CHILD – NAME (FIRST) (MIDDLE) (LAST)
2 SEX
3a PLURALITY – SINGLE, TWIN, TRIPLET, ETC. (SPECIFY)
3b IF NOT SINGLE – BORN 1ST, 2ND, 3RD, ETC. (SPECIFY)
4a DATE OF BIRTH (Month, Day, Year)
4b TIME OF BIRTH M

PLACE

5a HOSPITAL NAME – (IF NOT HOSPITAL GIVE STREET AND NUMBER)
5b CITY, VILLAGE, OR TOWNSHIP OF BIRTH
5c COUNTY OF BIRTH

CERTIFICATION

6a I CERTIFY THAT THE ABOVE NAMED CHILD WAS BORN ALIVE AT THE PLACE AND TIME AND ON THE DATE STATED ABOVE
SIGNATURE ______
DATE
CERTIFIER'S NAME & TITLE (print or type)
6c NAME AND TITLE OF ATTENDANT IF OTHER THAN CERTIFIER
MAILING ADDRESS OF ATTENDANT – STREET NO. CITY OR VILLAGE STATE ZIP
7a REGISTRAR'S SIGNATURE
7b DATE RECEIVED BY LOCAL REGISTRAR – (Month, Day, Year)

MOTHER

8a MOTHER'S NAME (FIRST, MIDDLE, LAST)
8b SOCIAL SECURITY NUMBER
8c STATE OF BIRTH – NAME COUNTRY IF NOT USA
8d DATE OF BIRTH (Month, Day, Year)
8e MOTHER – SURNAME BEFORE FIRST MARRIED
8f RESIDENCE (Check one box and specify)
☐ INSIDE CITY OR VILLAGE OF
☐ TWP. OF
[redacted]
8g COUNTY
8h STATE

BY AUTHORITY ACT 368 P.A. 1978

FATHER

9a FATHER'S NAME (FIRST, MIDDLE, LAST)
9b SOCIAL SECURITY NUMBER
9c STATE OF BIRTH – NAME COUNTRY IF NOT USA
9d DATE OF BIRTH (Month, Day, Year)

10a I CERTIFY THAT THE PERSONAL INFORMATION PROVIDED ON THIS CERTIFICATE IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF
SIGNATURE (PARENT OR OTHER INFORMANT) ______
10b THE PARENT(S) REQUEST THAT INFORMATION ON THIS BIRTH BE RELEASED TO THE SOCIAL SECURITY ADMIN. FOR ISSUANCE OF A SOCIAL SECURITY NUMBER AND CARD
☐ YES ☐ NO

0213 (11-89)
MDPH

CONFIDENTIAL INFORMATION FOR PUBLIC HEALTH USE ONLY

11 ANCESTRY – Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro-American, Arab, English, French, Finnish, etc. (Specify below)
12 RACE – American Indian, Black, White, etc. If Asian give nationality, i.e. Chinese, Filipino, Asian Indian, etc. (Specify below)
13 EDUCATION (Specify only highest grade completed) Elementary/Secondary (0-12) College (1-4 or 5+)

MOTHER 11a 12a 13a
FATHER 11b 12b 13b

14 EXPECTED SOURCE OF PAYMENT FOR MEDICAL SERVICES (Private Insurance, Medicaid, etc.)
15 MOTHER'S MAILING ADDRESS (STREET NUMBER, CITY OR VILLAGE, STATE, ZIP)
16a MEDICAL RECORD NUMBER OF MOTHER
16b MEDICAL RECORD NUMBER OF CHILD
17 DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)
18 MONTH OF PREGNANCY PRENATAL CARE BEGAN
19 TOTAL PRENATAL VISITS

MEDICAL AND HEALTH INFORMATION

20 LIVE BIRTHS (Do not include this Child)
20a NOW LIVING
20b NOW DEAD
Number
None ☐
20c DATE OF LAST LIVE BIRTH (Mo., Year)
20d OTHER TERMINATIONS (Spontaneous and induced at any time after conception)
Number
None ☐
20e DATE OF LAST OTHER TERMINATION (Mo., Year)
21a MOTHER TRANSFERRED PRIOR TO DELIVERY?
☐ YES ☐ NO
21b INFANT TRANSFERRED?
☐ YES ☐ NO
23 INFANT ADMITTED TO NICU?
☐ YES ☐ NO
22 ATTENDANT AT BIRTH
MD
DO
NURSE
CERTIFIED NURSE MID.
MIDWIFE
OTHER
24 BIRTHWEIGHT (Specify unit)
25 ESTIMATED GESTATION
APGAR SCORE
5 MIN.
27 PLACE OF BIRTH
Hospital
Freestanding Birth Center
Clinic Doctor's Office
Residence
Other (Specify)

28 MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)

29 OTHER RISK FACTORS FOR THIS PREGNANCY

30 OBSTETRIC PROCEDURES (Check all that apply)

31 COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)

32 METHOD OF DELIVERY (Check all that apply)

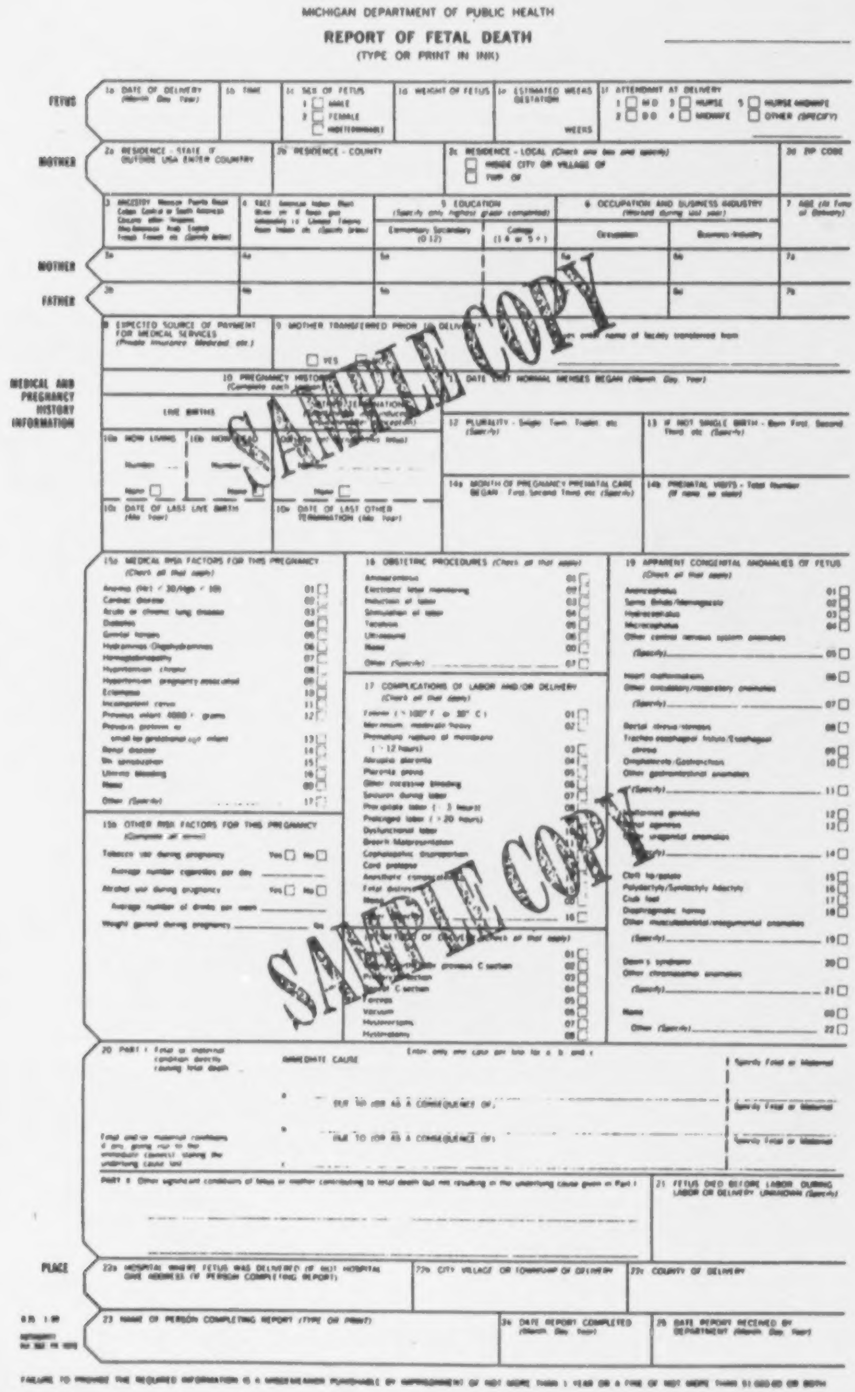
33 ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)

34 APPARENT CONGENITAL ANOMALIES OF NEWBORN (Check all that apply)

SAMPLE COPY

SAMPLE COPY

Figure 4.3



MICHIGAN DEPARTMENT OF PUBLIC HEALTH

REPORT OF FETAL DEATH

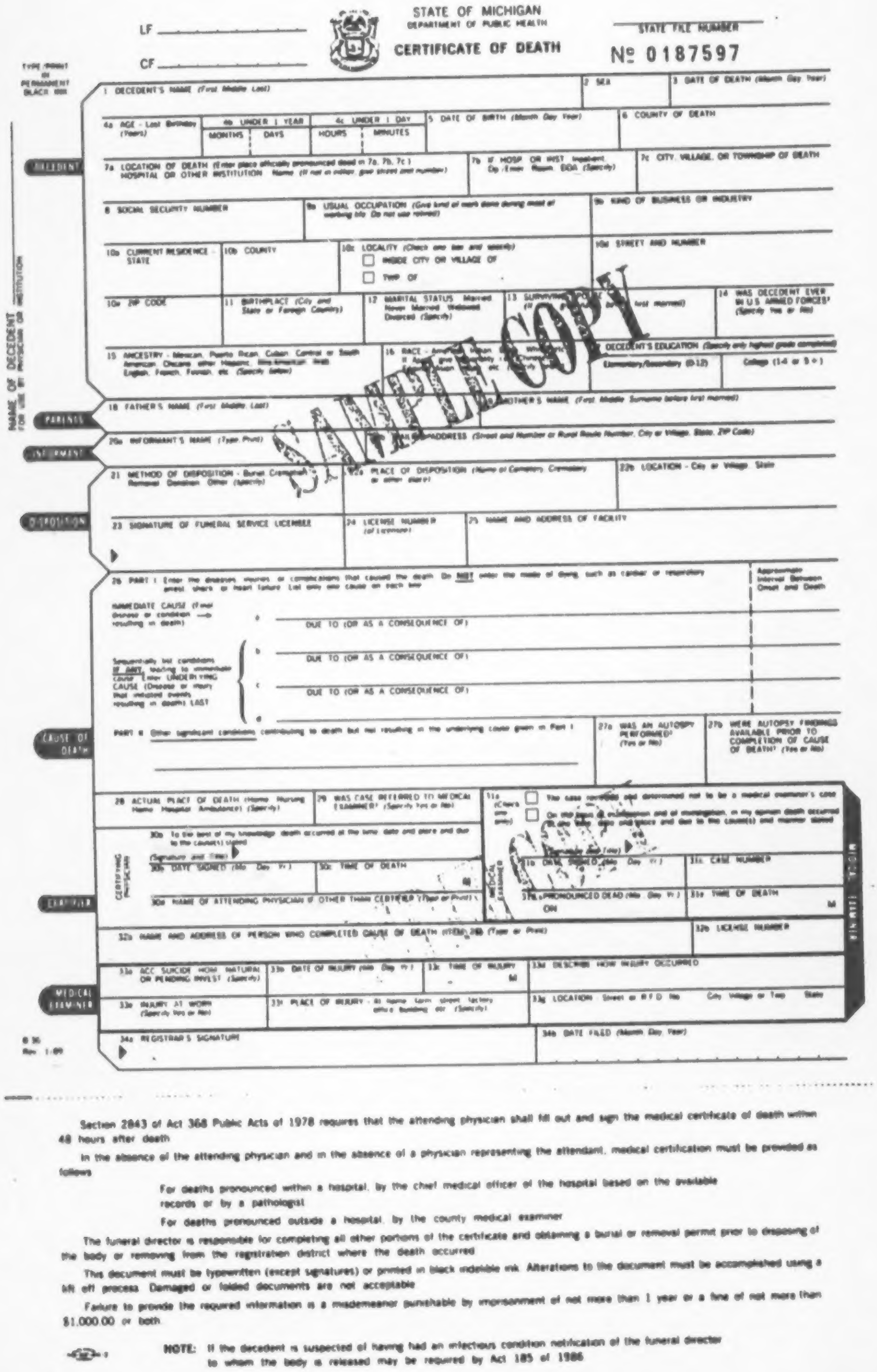
(TYPE OR PRINT IN INK)

SAMPLE COPY

SAMPLE COPY

SAMPLE COPY

Figure 4.4



LF
CF

STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH
CERTIFICATE OF DEATH

STATE FILE NUMBER
№ 0187597

TYPE/PRINT IN PERMANENT BLACK INK

NAME OF DECEDENT
FOR USE BY PHYSICIAN OR INSTITUTION

SAMPLE COPY

DECEDENT

1 DECEDENT'S NAME (First Middle Last)
2 SEX
3 DATE OF DEATH (Month Day Year)
4a AGE - Last Birthday (Years)
4b UNDER 1 YEAR: MONTHS, DAYS
4c UNDER 1 DAY: HOURS, MINUTES
5 DATE OF BIRTH (Month Day Year)
6 COUNTY OF DEATH
7a LOCATION OF DEATH (Enter place officially pronounced dead in 7a, 7b, 7c) HOSPITAL OR OTHER INSTITUTION Name (If not in either, give street and number)
7b IF HOSP OR INST Inpatient, Op/Emer Room, DOA (Specify)
7c CITY, VILLAGE, OR TOWNSHIP OF DEATH
8 SOCIAL SECURITY NUMBER
9a USUAL OCCUPATION (Give kind of work done during most of working life. Do not use retired)
9b KIND OF BUSINESS OR INDUSTRY
10a CURRENT RESIDENCE - STATE
10b COUNTY
10c LOCALITY (Check one box and specify)
☐ INSIDE CITY OR VILLAGE OF
☐ TWP OF
10d STREET AND NUMBER
10e ZIP CODE
11 BIRTHPLACE (City and State or Foreign Country)
12 MARITAL STATUS Married, Never Married, Widowed, Divorced (Specify)
13 SURVIVING SPOUSE (If wife, give name before first married)
14 WAS DECEDENT EVER IN U.S. ARMED FORCES? (Specify Yes or No)
15 ANCESTRY - Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro-American, Arab, English, French, Finnish, etc. (Specify below)
16 RACE - American Indian, Black, White, etc. (Specify)
17 DECEDENT'S EDUCATION (Specify only highest grade completed)
Elementary/Secondary (0-12)
College (1-4 or 5+)

PARENTS

18 FATHER'S NAME (First Middle Last)
19 MOTHER'S NAME (First Middle Surname before first married)

INFORMANT

20a INFORMANT'S NAME (Type/Print)
20b MAILING ADDRESS (Street and Number or Rural Route Number, City or Village, State, ZIP Code)

DISPOSITION

21 METHOD OF DISPOSITION - Burial, Cremation, Removal, Donation, Other (Specify)
22a PLACE OF DISPOSITION (Name of Cemetery, Crematory or other place)
22b LOCATION - City or Village, State
23 SIGNATURE OF FUNERAL SERVICE LICENSEE
24 LICENSE NUMBER (of Licensee)
25 NAME AND ADDRESS OF FACILITY

CAUSE OF DEATH

26 PART I Enter the diseases, injuries, or complications that caused the death. Do NOT enter the mode of dying, such as cardiac or respiratory arrest, shock or heart failure. List only one cause on each line.

Approximate Interval Between Onset and Death

IMMEDIATE CAUSE (Final disease or condition resulting in death) a
DUE TO (OR AS A CONSEQUENCE OF)
b
DUE TO (OR AS A CONSEQUENCE OF)
c
DUE TO (OR AS A CONSEQUENCE OF)
d

Sequentially list conditions, IF ANY, leading to immediate cause. Enter UNDERLYING CAUSE (Disease or injury that initiated events resulting in death) LAST

PART II Other significant conditions contributing to death but not resulting in the underlying cause given in Part I

27a WAS AN AUTOPSY PERFORMED? (Yes or No)
27b WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? (Yes or No)
28 ACTUAL PLACE OF DEATH (Home, Nursing Home, Hospital, Ambulance) (Specify)
29 WAS CASE REFERRED TO MEDICAL EXAMINER? (Specify Yes or No)

CERTIFIER

CERTIFYING PHYSICIAN

30a To the best of my knowledge, death occurred at the time, date and place and due to the cause(s) stated.
(Signature and Title)
30b DATE SIGNED (Mo Day Yr)
30c TIME OF DEATH M
30d NAME OF ATTENDING PHYSICIAN IF OTHER THAN CERTIFIER (Type or Print)

MEDICAL EXAMINER

31a (Check one only)
☐ The case reviewed and determined not to be a medical examiner's case
☐ On the basis of examination and of investigation, in my opinion death occurred at the time, date and place and due to the cause(s) and manner stated
(Signature and Title)
31b DATE SIGNED (Mo Day Yr)
31c CASE NUMBER
31d PRONOUNCED DEAD (Mo Day Yr) ON
31e TIME OF DEATH M
32a NAME AND ADDRESS OF PERSON WHO COMPLETED CAUSE OF DEATH (ITEM 26) (Type or Print)
32b LICENSE NUMBER

MEDICAL EXAMINER

33a ACC, SUICIDE, HOM, NATURAL OR PENDING INVEST (Specify)
33b DATE OF INJURY (Mo Day Yr)
33c TIME OF INJURY M
33d DESCRIBE HOW INJURY OCCURRED
33e INJURY AT WORK (Specify Yes or No)
33f PLACE OF INJURY - At home, farm, street, factory, office building, etc. (Specify)
33g LOCATION Street or R F D No, City, Village or Twp, State
34a REGISTRAR'S SIGNATURE
34b DATE FILED (Month Day Year)

B 36
Rev 1-89

Section 2843 of Act 368 Public Acts of 1978 requires that the attending physician shall fill out and sign the medical certificate of death within 48 hours after death.

In the absence of the attending physician and in the absence of a physician representing the attendant, medical certification must be provided as follows:

For deaths pronounced within a hospital, by the chief medical officer of the hospital based on the available records or by a pathologist.

For deaths pronounced outside a hospital, by the county medical examiner.

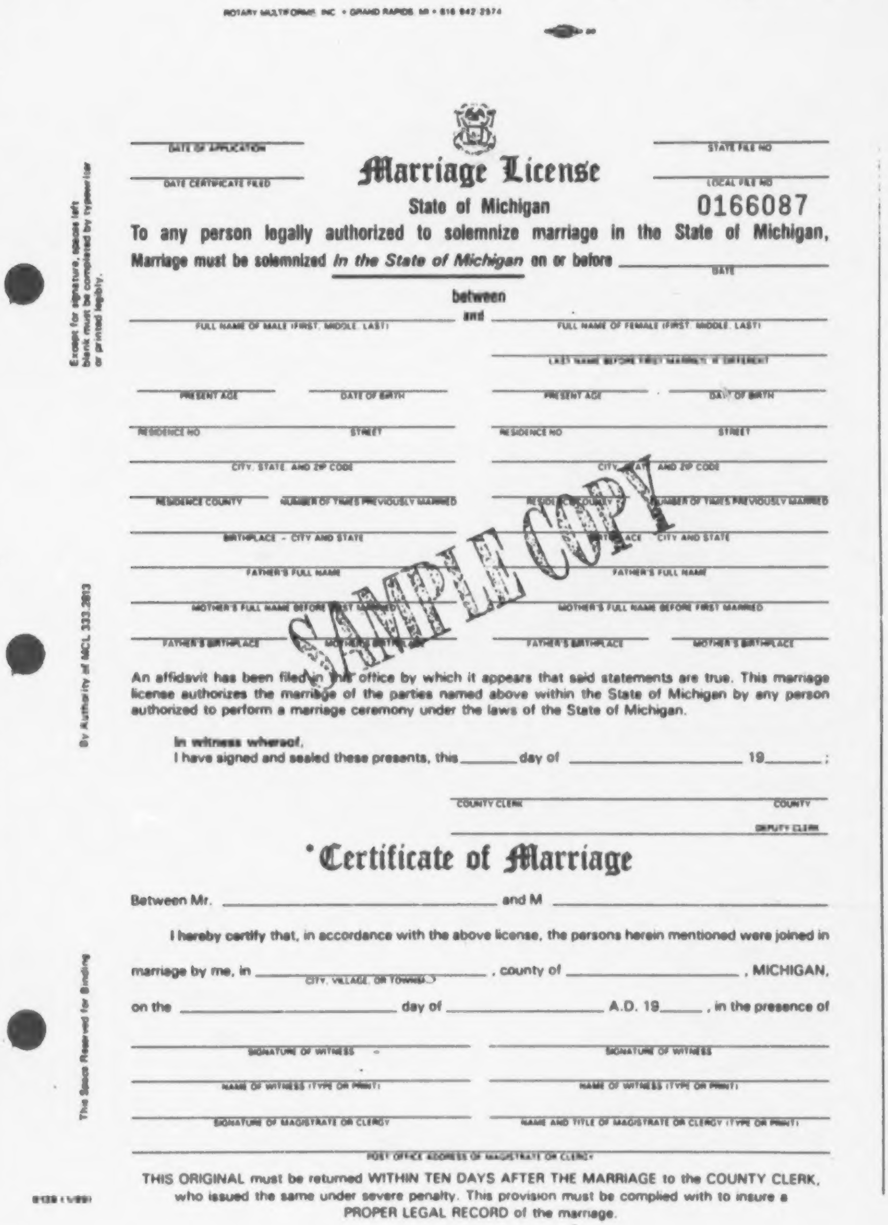
The funeral director is responsible for completing all other portions of the certificate and obtaining a burial or removal permit prior to disposing of the body or removing from the registration district where the death occurred.

This document must be typewritten (except signatures) or printed in black indelible ink. Alterations to the document must be accomplished using a lift off process. Damaged or folded documents are not acceptable.

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than $1,000.00 or both.

NOTE: If the decedent is suspected of having had an infectious condition notification of the funeral director to whom the body is released may be required by Act 185 of 1986.

Figure 4.5



ROTARY MULTIFORMS, INC. • GRAND RAPIDS, MI • 616 942 2574

Except for signature, space left blank must be completed by typewriter or printed legibly.

DATE OF APPLICATION

DATE CERTIFICATE FILED

STATE FILE NO

LOCAL FILE NO

0166087

Marriage License

State of Michigan

To any person legally authorized to solemnize marriage in the State of Michigan,

Marriage must be solemnized *In the State of Michigan* on or before ______ DATE

between

FULL NAME OF MALE (FIRST, MIDDLE, LAST) **and** FULL NAME OF FEMALE (FIRST, MIDDLE, LAST)

		LAST NAME BEFORE FIRST MARRIED, IF DIFFERENT	
PRESENT AGE	DATE OF BIRTH	PRESENT AGE	DATE OF BIRTH
RESIDENCE NO	STREET	RESIDENCE NO	STREET
CITY, STATE, AND ZIP CODE		CITY, STATE, AND ZIP CODE	
RESIDENCE COUNTY	NUMBER OF TIMES PREVIOUSLY MARRIED	RESIDENCE COUNTY	NUMBER OF TIMES PREVIOUSLY MARRIED
BIRTHPLACE – CITY AND STATE		BIRTHPLACE – CITY AND STATE	
FATHER'S FULL NAME		FATHER'S FULL NAME	
MOTHER'S FULL NAME BEFORE FIRST MARRIED		MOTHER'S FULL NAME BEFORE FIRST MARRIED	
FATHER'S BIRTHPLACE	MOTHER'S BIRTHPLACE	FATHER'S BIRTHPLACE	MOTHER'S BIRTHPLACE

SAMPLE COPY

By Authority of MCL 333.2813

An affidavit has been filed in this office by which it appears that said statements are true. This marriage license authorizes the marriage of the parties named above within the State of Michigan by any person authorized to perform a marriage ceremony under the laws of the State of Michigan.

In witness whereof,
I have signed and sealed these presents, this ______ day of ______ 19______;

COUNTY CLERK ______ COUNTY

DEPUTY CLERK

*Certificate of Marriage

Between Mr. ______ and M ______

I hereby certify that, in accordance with the above license, the persons herein mentioned were joined in

marriage by me, in ______ (CITY, VILLAGE, OR TOWNSHIP), county of ______, MICHIGAN,

on the ______ day of ______ A.D. 19______, in the presence of

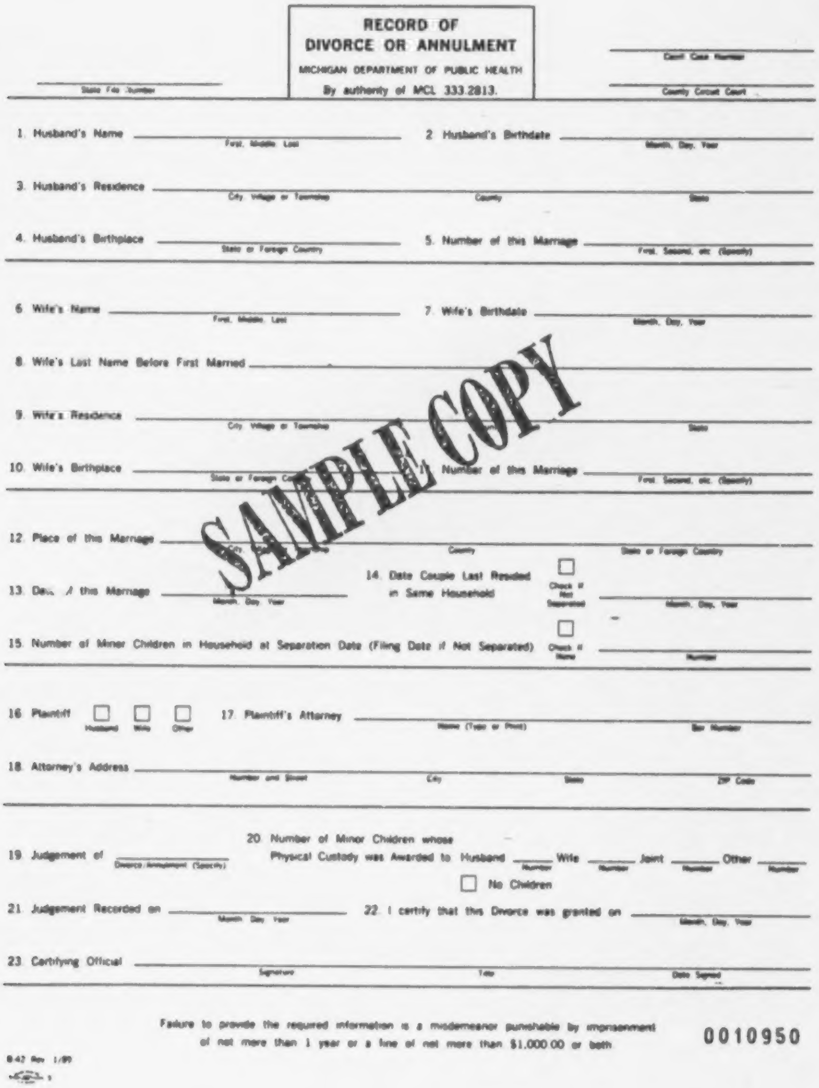
SIGNATURE OF WITNESS	SIGNATURE OF WITNESS
NAME OF WITNESS (TYPE OR PRINT)	NAME OF WITNESS (TYPE OR PRINT)
SIGNATURE OF MAGISTRATE OR CLERGY	NAME AND TITLE OF MAGISTRATE OR CLERGY (TYPE OR PRINT)

POST OFFICE ADDRESS OF MAGISTRATE OR CLERGY

The Space Reserved for Binding

THIS ORIGINAL must be returned WITHIN TEN DAYS AFTER THE MARRIAGE to the COUNTY CLERK, who issued the same under severe penalty. This provision must be complied with to insure a PROPER LEGAL RECORD of the marriage.

Figure 4.6



RECORD OF DIVORCE OR ANNULMENT

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

By authority of MCL 333.2813.

State File Number

Court Case Number

County Circuit Court

1. Husband's Name ______ First, Middle, Last

2. Husband's Birthdate ______ Month, Day, Year

3. Husband's Residence ______ City, Village or Township ______ County ______ State

4. Husband's Birthplace ______ State or Foreign Country

5. Number of this Marriage ______ First, Second, etc. (Specify)

6. Wife's Name ______ First, Middle, Last

7. Wife's Birthdate ______ Month, Day, Year

8. Wife's Last Name Before First Married ______

9. Wife's Residence ______ City, Village or Township ______ County ______ State

10. Wife's Birthplace ______ State or Foreign Country

11. Number of this Marriage ______ First, Second, etc. (Specify)

12. Place of this Marriage ______ City, Village or Township ______ County ______ State or Foreign Country

13. Date of this Marriage ______ Month, Day, Year

14. Date Couple Last Resided in Same Household ☐ Check if Not Separated ______ Month, Day, Year

15. Number of Minor Children in Household at Separation Date (Filing Date if Not Separated) ☐ Check if None ______ Number

16. Plaintiff ☐ Husband ☐ Wife ☐ Other

17. Plaintiff's Attorney ______ Name (Type or Print) ______ Bar Number

18. Attorney's Address ______ Number and Street ______ City ______ State ______ ZIP Code

19. Judgement of ______ Divorce/Annulment (Specify)

20. Number of Minor Children whose Physical Custody was Awarded to Husband ____ Number Wife ____ Number Joint ____ Number Other ____ Number

☐ No Children

21. Judgement Recorded on ______ Month, Day, Year

22. I certify that this Divorce was granted on ______ Month, Day, Year

23. Certifying Official ______ Signature ______ Title ______ Date Signed

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than $1,000.00 or both

0010950

B-42 Rev 1/89

SAMPLE COPY

S4000-3-U

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

MICHIGAN HEALTH STATISTICS

OFFICE OF THE STATE REGISTRAR

1992

SYMBOLS USED IN TABLES

Data not available	---
Category not applicable	000
Quantity zero	-
Quantity more than zero but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*
Provisional	Pr.

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B 54 (12/93) AUTHORITY: ACT 368, PA1978

MICHIGAN
HEALTH STATISTICS

1992

Office of the State Registrar and Division for Health Statistics

Michigan Department of Public Health
Lansing, Michigan December 1993

Michigan Department of Public Health
Vernice Davis Anthony, State Health Director

Office of the State Registrar and Division for Health Statistics
George H. Van Amburg, M.S., M.P.H., Chief

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INTRODUCTION

The 1992 edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1992. Data relative to population, births, deaths, fetal deaths, marriages, divorces and communicable diseases are included. Although most of the data in this report pertain to events occurring in 1992, data for prior years have been included to illustrate trends. Most of the tabulations refer to Michigan residents. Some events, however, such as marriages and divorces are tabulated with respect to where the event occurred rather than the residence of the party or parties involved.

As a certain number of Michigan residents either deliver babies or die out of state each year, it is necessary to include data obtained from the certificates of other states in any tabulations pertaining to Michigan residents. This report includes all such out-of-state certificates received prior to April 30, 1993, and all in-state certificates and records received prior to March 15, 1993. Although a few additional records for the calendar year 1992 were received after these filing dates, their exclusion from this report is statistically insignificant.

This report is composed of county and state vital event profiles as well as the following sections and appendices:

1. County and State Health Statistics Profiles
2. Natality Section
3. Mortality Section
4. Marriage and Divorce Section
5. Reference Appendix

Comments or suggestions concerning the content and format of this report are always welcome. Any additional needs for data or analyses may be directed to the Office. The Office will make every attempt to comply with requests for data within the limitations of staff and resources.

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TECHNICAL NOTES, DEFINITIONS, RATES AND RATIOS

DEFINITIONS

ANCESTRY - National origin for mother, father or decedent is as stated on certificate. First collected in 1989. If more than one ancestry is reported, the first listed is used. If "American" is given with any other ancestry, the other ancestry is used.

BIRTH WEIGHT - Weight of fetus or infant at time of delivery.

FETAL DEATH - Death prior to the complete expulsion or extraction from its mother of a product of conception, having passed through at least the 20th week of gestation or weighing at least 400 grams; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. (Note: This does not include induced terminations.)

FIRST BIRTH - A live birth where the maternal medical history indicates there were no prior live births to the mother.

GESTATIONAL PERIOD - Number of completed weeks elapsed between the first day of the last menstrual period and the date of delivery.

HEBDOMADAL DEATH - Deaths occurring to individuals less than 7 days of age.

INFANT DEATH - Deaths occurring to individuals less than 1 year of age.

INFANT DEATH/LIVE BIRTH MATCHED FILE COMPLETENESS RATIO - The number of matched records for infant deaths and live births for deceased Michigan resident live births divided by the number of Michigan resident or presumed resident live births known to be deceased x 100.

INTERPREGNANCY TIME PERIOD - Birth date minus date of last termination, whether a live birth or fetal death, in months. Time periods of zero length are dropped to exclude 2nd or higher births of multiple deliveries.

KESSNER INDEX:

Adequate prenatal care is defined as care which began within the first trimester and which included an average of at least one or two additional prenatal visits per month of gestation, depending on the length of gestation.

Intermediate prenatal care is defined as care which began during the second trimester of the pregnancy with correspondingly fewer visits, or which began during the first trimester but with fewer visits than would be appropriate for the length of gestation.

Inadequate prenatal care is when no care was received or if care began during the third trimester. It is also inadequate if care began during the first or second trimester but less than five visits occurred, when the length of gestation was 34 weeks or more. When the length of gestation was less than 34 weeks, care is defined as inadequate when care began during the first or second trimester but a number of visits less than four occurred, that number depending on the actual weeks of gestation.

LEADING CAUSES OF DEATH - Deaths are grouped into 72 categories dependent upon the underlying cause of death. Ranks are assigned by organizing these categories according to the number of deaths in each category from most frequent to least.

LIFE EXPECTANCY - A hypothetical calculation of the average age at death for a cohort of persons subject to the age-specific mortality rates observed over a given time period.

LIFE TABLE VALUES:

nqx = The proportion of persons in the cohort alive at the beginning of an age interval (x) who will die before reaching the end of that age interval (x+n).

lx = The number of persons living at the beginning of an age interval (x) out of an original cohort of 100,000.

ndx = The number of persons who would die during an age interval (x to x+n) out of an original cohort of 100,000.

nLx = The number of person-years that would be lived within an indicated age interval (x to x+n) out of an original cohort of 100,000 alive for all or part of the interval.

Tx = The number of person-years that would be lived after the beginning of an age interval (x) by an original cohort of 100,000 until all are assumed to have died.

ex = The average remaining lifetime (in years) for an individual person who survives to the beginning of an indicated age interval (x).

LIVE BIRTH - A live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Effective on November 9, 1981, the definition of a live birth is established in administrative rule number 325.3201 as follows:

> "*Live birth*" means the complete expulsion or extraction from a pregnant woman of a product of human conception which, after such expulsion or extraction, shows any evidence of life, whether or not the umbilical cord has been cut or the placenta is attached.

LIVE-BIRTH ORDER - Order number is equal to number of previous live births plus current birth.

LOW-WEIGHT BIRTH - Births in 1984 or later wherein the birth weight is less than 2,500 grams (approximately 5 lbs., 8 oz.) or births before 1984 wherein the birth weight is 2,500 grams or less.

MATERNAL DEATHS - Those deaths wherein the physician has designated a maternal condition as the underlying cause of death (9th Revision ICD codes 630-676).

MEAN - The average of a set of values, equal to the sum of the values divided by the number of values.

MEDIAN - The central value of a distribution of values wherein the same percentage of observations are above this point as are below.

MINOR CIVIL DIVISION - City, village, or township.

NEONATAL DEATH - Deaths occurring to individuals less than 28 days of age.

OCCURRENCE - Place where the event actually occurred.

PERINATAL DEATH - Fetal deaths plus deaths to individuals less than 7 days of age.

POSTNEONATAL DEATH - Deaths occurring to individuals 28-364 days of age.

PROBABILITY OF EVENTUALLY DYING FROM A GIVEN CAUSE OF DEATH - The chance of death due to a given cause rather than some competitive cause over the course of a lifetime based on current mortality data and life expectancy techniques.

RACE - Race for mother, father, or decedent is as stated on certificate. Race of child is determined from the race of the parents.

REMAINING YEARS OF LIFE - A hypothetical calculation of the average number of years a cohort of persons will live given that they have reached a specific age and assuming they are subject to the age-specific mortality rates observed over a given time period.

RESIDENCE - Usual place of residence for the person to whom the event occurred. For births and fetal deaths, residence is defined as the mother's usual place of residence.

TOTAL BIRTHS - Live births plus fetal deaths.

UNDERLYING CAUSE OF DEATH - That condition giving rise to the chain of events leading to death.

VERY LOW-WEIGHT BIRTH - Births in 1984 or later wherein the birth weight is less than 1,500 grams (approximately 3 lbs., 4 oz.) or births before 1984 wherein the birth weight is 1,500 grams or less.

YEARS OF POTENTIAL LIFE LOST - The number of years between the age at death and 65 years of age for individuals dying before age 65.

RATES AND RATIOS

AGE-ADJUSTED DEATH RATE - A summary rate of death that is developed using a standard population distribution to improve the comparability of rates for areas or population subgroups with differing age distributions. When calculated by the direct method, as in this report, age-specific death rates for a geographic area or population subgroup are multiplied by the standard population by specific age and the products summed and divided by the total standard population. Age-adjusted death rates represent the mortality experience that would have occurred in a standard population had the age-specific rates of the area or population subgroup been experienced by the standard population. These rates are presented as per 100,000 population.

AGE-SPECIFIC BIRTH RATE - Number of resident live births to women of a specific age divided by total resident female population of specific age x 1,000.

AGE-SPECIFIC DEATH RATE - Number of resident deaths in specific age group divided by total resident population in specific age group x 100,000.

AGE-SPECIFIC DEATH RATE BY CAUSE OF DEATH - Number of resident deaths in specific age group and from a specific cause divided by total resident population in specific age group x 100,000.

AGE-SPECIFIC MARRIAGE RATE - Number of occurrent marriages in specific age group by sex divided by total resident population in specific age and sex group x 1,000.

CAUSE-SPECIFIC RATE - Number of resident deaths due to a specific cause divided by total resident population x 100,000.

CONGENITAL ANOMALY RATE - Number of resident live births with a congenital malformation reported divided by the total number of resident live births x 10,000.

COMMUNICABLE DISEASE CASE RATE - Number of reported cases (specific communicable diseases) divided by total resident population x 100,000.

CRUDE BIRTH RATE - Number of resident live births divided by total resident population x 1,000.

CRUDE DEATH RATE - Number of resident deaths divided by total resident population x 1,000.

DIVORCE RATE - Number of persons with occurrent divorces and annulments divided by total resident population x 1,000.

FERTILITY RATE - Number of resident live births divided by total resident female population ages 15-44 x 1,000.

FETAL DEATH RATE - Number of resident fetal deaths divided by total resident live births plus resident fetal deaths x 1,000.

FETAL DEATH RATIO - Number of resident fetal deaths divided by total resident live births x 1,000.

FIRST MARRIAGE RATE - Number of occurrent marriages to persons not previously married by sex divided by total resident population by sex x 1,000.

INFANT MORTALITY RATE - Number of resident infant deaths divided by total resident live births x 1,000.

LOW-WEIGHT BIRTH RATIO - Number of resident low-weight births divided by total resident live births x 1,000.

MARRIAGE RATE - Number of occurrent marriages by sex divided by total resident population by sex x 1,000.

MATERNAL DEATH RATE - Number of resident maternal deaths divided by total resident live births x 100,000.

NEONATAL DEATH RATE - Number of resident neonatal deaths divided by total resident live births x 1,000.

NO PRENATAL CARE RATIO - Number of resident live births to mothers with no prenatal care divided by total resident live births x 1,000.

PERINATAL DEATH RATE - Number of perinatal deaths divided by total resident live births plus resident fetal deaths x 1,000.

POSTNEONATAL DEATH RATE - Number of resident postneonatal deaths divided by total resident live births x 1,000.

RATE OF NATURAL INCREASE - (Total resident live births minus total resident deaths) divided by total resident population x 1,000.

TOTAL FERTILITY RATE - Sum of (age-specific birth rates) x (number of years in age group) for each age group from ages 10-14 through 45-49 years.

RELIABILITY OF RATES

Care should be taken in drawing specific inferences from comparisons of rates for different areas or different periods of time. Rates based on a small number of events or for a small area tend to exhibit considerable variation from time period to time period or place to place. Excessive variation in rates not only negates their utility as estimators of the probability of an event occurring but also their usefulness for comparative purposes.

Also, one should recognize the limitations of using unadjusted rates in attempting to attribute rate differences to particular factors. For example, one should not attempt to state that there was a significant difference in rates for two geographic areas for atherosclerosis without first adjusting the rates to negate the effects of differing age distributions in the two areas.

Many times there are simply not sufficient data available to adequately adjust rates for all possible confounding factors. For this reason the reader should exercise diligence and caution while attempting to draw substantive conclusions when comparing vital statistics rates.

QUALIFICATIONS AND LIMITATIONS OF DATA AND CALCULATIONS

UNDERREGISTRATION OF EVENTS

The underregistration of vital events in Michigan is considered to be a minimal problem, particularly for births and deaths. Tests of registration completeness conducted in conjunction with the 1950 Census indicate that the registration of births was 98.5 percent complete, and that death registration was even more complete. The number of certificates received too late for inclusion in annual statistical files is insignificant when examining statewide patterns.

GEOGRAPHIC ALLOCATION

The allocation of events on a residence or occurrence basis is for the most part accurate and complete. However, allocations to minor civil divisions are subject to question in some instances. In those cases where the respondent completes the residence item with a mailing address, geographic allocation is sometimes undeterminable and the record receives an unknown minor civil division code.

FETAL DEATHS

Fetal deaths in Michigan include only those conceptions that have passed through 20 weeks gestation or that weigh 400 grams or more. Prior to the introduction of a new reporting form for fetal deaths on September 30, 1978, Michigan law required only the reporting of deaths of fetuses which had passed through 20 weeks gestation. Inadequacies in determining the gestational age of the fetus may have resulted in some underreporting of fetal deaths. The change in definition has had little impact on the number of fetal deaths reported.

COMPARABILITY IN CAUSE OF DEATH STATISTICS

The reader should bear in mind two major limitations in interpreting changes in cause-of-death statistics. Changes in nomenclature and the classification scheme (International Classification of Diseases) and changes in diagnostic practices may seriously affect the comparability of such statistics over time. The classification scheme (ICD) is modified approximately once every ten years to reflect changing medical opinion and practice. The reader is most accurate when comparing cause-of-death certificates which are coded via one revision of the International Classification of Diseases and utilizing the coding practices and procedures in effect at that time.

In order to compare cause-of-death statistics from one revision to the next it is necessary to apply a comparability ratio. Such ratios are developed by comparing the number of deaths assigned to a certain condition or group of conditions under one revision to the number assigned under another revision of the ICD.

In 1979 the 9th Revision of the International Classification of Diseases, WHO, was introduced for coding causes of death and was employed in categorizing the data for 1979 to date.

LIFE EXPECTANCY

The procedure used to obtain the Michigan life table values is called the iterative method. This is a method which has been developed by Felix Moore formerly of the Department of Biostatistics, School of Public Health, University of Michigan.

For the age group 0-1 the method utilizes the algorithm developed by Greville with no iteration. For all subsequent age groups the method of Greville (Keyfitz) is used with three iterations to improve the estimate of ndx and nqx. An iteration procedure is also used for nLx for age groups 75-80 and 80-85 where the accuracy of mortality information is a factor and for obtaining the separation factor for the age group 1-4.

AGE-ADJUSTMENT PROCEDURE AND POPULATION ESTIMATION

Population data for 1970, 1980 and 1990 were obtained from the April 1, 1970, April 1, 1980 and April 1, 1990 census counts. Data for 1980 and 1990 include revised census data as released by the Census Bureau. The population totals used for 1971-1979 are intercensal estimates prepared by the Census Bureau utilizing the revised 1980 census figures. The breakdowns of these totals by age, race, and sex were prepared by the Office of the State Registrar and Center for Health Statistics. For 1970 and 1980 the proportion of the total population in each age, race, and sex group was computed. Estimates of the proportion of the total population in each age, race, and sex group for the years 1971-1979 were then derived by interpolating between the proportions for 1970 and 1980. These subgroup proportions were then applied to the state totals to obtain population estimates by age, race, and sex for years 1971-1979.

Population estimates for 1985 through 1989 by age and sex were obtained by adding births, removing deaths and aging the remaining population, using Census Bureau-National Cancer Institute 1984 age, race and sex population estimates. Black and other race estimates for 1984 were prepared by projecting the mean annual change in the race proportions of each age-sex group of the non-white population observed between 1970 and 1980. Revised estimates of the proportion of the total population in each age, race and sex group for the years 1981-1983 were derived by interpolating between the populations for 1980 and 1984. Revised population data from the 1990 census were used to calculate the rates presented in this report.

The age-adjusted rates for Michigan presented in this report for years 1970-1992 were calculated using Michigan resident mortality data and the series of population data described above. Death records with the race not stated were first randomly allocated to the white and other than white groups based on the proportion of Michigan resident deaths in each of the racial categories for that year. Records with sex not stated were randomly assigned to male and female (50 percent each). Records with age not stated were allocated to the age group 85 and over.

In the age-adjustment procedure ten age groups were employed including under 1 year, 1-14 years, ten year age groups from 15-24 years to age 75-84, and 85 years and over. Age-specific rates for the total population and for each subgroup were applied to the same standard population distributed by age. The resulting expected deaths were then summed over the ten age groups and divided by the total of the standard population to obtain the age-adjusted rate. The standard population selected was the 1940 United

States enumerated population. Comparisons can be made between subgroup rates, between rates in different years, and between rates for Michigan and similarly computed rates for the United States.

UNITED STATES DEATH RATES

Death rates for the United States were taken from publications by the National Center for Health Statistics, U.S. Dept. of Health and Human Services. Rates for the United States shown in the series of tables of death rates for Michigan and the United States have been revised for 1971-1980 based on the 1980 census enumeration, as a result of the large difference between the 1980 census enumeration and the previously estimated population for 1980. The 1980 census enumeration was about 5.5 million higher than the estimated population for April 1, 1980.

The estimated populations used for 1991 and 1992 provisional data are based on the 1990 census enumeration and therefore are comparable to those used for the 1990 and 1991 final data. Rates for 1981-1989 have been recomputed based on populations for those years that are consistent with the 1990 census levels.

COUNTY AND STATE HEALTH STATISTICS PROFILES

Profiles of county and state vital events statistics are presented in a one page summary form for each county and the state as a whole. The profiles contain those data most often requested of the Division for Health Statistics by health data users.

For further county or state information, please direct your inquiries to the address or phone number printed in the Introduction.

Profile of Michigan

POPULATION

As of April 1, 1990:	9,295,297
Rank Among Counties:	-
Per Square Mile:	163.2

NATALITY

Total Live Births:	143,827
Teenage Mothers:	18,714
Low Weight Births:	10,829
First Births:	56,283

MORTALITY

Total Deaths:	78,916
Infant Deaths:	1,460
Neonatal Deaths:	962
Postneonatal Deaths:	498
Perinatal Deaths:	1,576
Fetal Deaths:	755

MARRIAGE

Marriages:	69,095
Marriage Rate:	14.9

DIVORCE

Divorces:	40,425
Divorce Rate:	8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	143,827	15.5	111,458	14.2	29,656	22.8	2,223	13.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	18,714	130.1	10,805	96.9	7,629	257.2	237	106.6
Low Weight	10,829	75.3	6,241	56.0	4,423	149.1	134	60.3
Under 1,500 Grams	2,198	15.3	1,138	10.2	1,025	34.6	28	12.6
< 38 Weeks Gestation	25,001	173.8	16,566	148.6	7,981	269.1	359	161.5
Prenatal Care Began in 1st Trimester	113,447	788.8	92,711	831.8	18,770	632.9	1,654	744.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1,460	10.2	781	7.0	656	22.1	23	10.3
Neonatal Deaths	962	6.7	497	4.5	452	15.2	13	5.8
Postneonatal Deaths	498	3.5	284	2.5	204	6.9	10	4.5
Perinatal Deaths	1,576	10.9	952	8.5	576	19.3	32	14.3
Fetal Deaths	755	5.2	538	4.8	180	6.0	21	9.4

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276
Mortality Rate	8.5	9.0	8.0	8.5	8.8	8.2	9.1	10.7	7.7	3.8	4.3	3.3

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1,460	256	167	189	537	761	807	2,454	3,740	5,965	13,709	48,867	4
White Male	450	107	70	99	246	358	357	1,151	1,677	2,793	6,758	19,554	1
White Female	331	51	46	41	108	108	145	519	914	1,858	4,569	24,064	2
Black Male	377	52	29	29	138	212	210	505	681	709	1,225	2,351	-
Black Female	277	39	19	18	39	66	77	249	400	519	1,013	2,631	1
Other Male	13	3	3	2	4	11	11	20	40	54	80	107	-
Other Female	10	3	-	-	2	5	2	8	27	27	60	132	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	78,916	849.0	66,377	847.4	11,868	914.1	1,149	43.9
Diseases of the Heart	26,863	289.0	23,194	296.1	3,473	267.5	30	1.1
Malignant Neoplasms	19,217	206.7	16,452	210.0	2,615	201.4	101	3.9
Cerebrovascular Diseases	5,087	54.7	4,442	56.7	607	46.8	6	0.2
Accidents and Adverse Effects	2,844	30.6	2,370	30.3	424	32.7	464	17.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	33.1	2,798	35.7	257	19.8	10	0.4
Pneumonia and Influenza	2,697	29.0	2,367	30.2	316	24.3	15	0.6
Diabetes Mellitus	2,114	22.7	1,702	21.7	389	30.0	1	0.0
Chronic Liver Disease and Cirrhosis	947	10.2	710	9.1	220	16.9	2	0.1
Homicide	1,047	11.3	320	4.1	718	55.3	174	6.6
Suicide	1,063	11.4	945	12.1	105	8.1	84	3.2
Atherosclerosis	774	8.3	710	9.1	60	4.6	-	-
AIDS	573	6.2	298	3.8	272	20.9	4	0.2

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: *Office of the State Registrar and Division for Health Statistics, MDPH*

Profile of Alcona County

POPULATION	
As of April 1, 1990:	10,145
Rank Among Counties:	74
Per Square Mile:	14.9

NATALITY	
Total Live Births:	97
Teenage Mothers:	16
Low Weight Births:	9
First Births:	36

MORTALITY	
Total Deaths:	159
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	2

MARRIAGE	
Marriages:	87
Marriage Rate:	17.2

DIVORCE	
Divorces:	54
Divorce Rate:	10.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	97	9.6	96	9.6	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	16	164.9	16	166.7	-	-	-	-
Low Weight	9	92.8	9	93.8	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	21	216.5	21	218.8	-	-	-	-
Prenatal Care Began in 1st Trimester	83	855.7	83	864.6	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	159	91	68	157	90	67	1	1	-	1	-	1
Mortality Rate	15.7	18.0	13.3	15.6	18.1	13.3	*	*	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	2	-	4	6	6	26	115	-
White Male	-	-	-	-	-	2	-	4	3	3	16	62	-
White Female	-	-	-	-	-	-	-	-	3	3	10	51	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	159	1,567.3	157	1564.4	1	*	-	-
Diseases of the Heart	46	453.4	45	448.4	-	-	-	-
Malignant Neoplasms	41	404.1	41	408.5	-	-	-	-
Cerebrovascular Diseases	13	128.1	13	129.5	-	-	-	-
Accidents and Adverse Effects	5	*	5	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	59.1	6	59.8	-	-	-	-
Pneumonia and Influenza	6	59.1	6	59.8	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	59.1	6	59.8	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Alger County

POPULATION

As of April 1, 1990:	8,972
Rank Among Counties:	75
Per Square Mile:	9.8

NATALITY

Total Live Births:	94
Teenage Mothers:	10
Low Weight Births:	6
First Births:	27

MORTALITY

Total Deaths:	118
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	71
Marriage Rate:	15.8

DIVORCE

Divorces:	33
Divorce Rate:	7.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	94	10.5	91	10.8	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	10	106.4	10	109.9	-	-	-	-
Low Weight	6	63.8	6	65.9	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	12	127.7	11	120.9	-	-	1	*
Prenatal Care Began in 1st Trimester	71	755.3	69	758.2	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	118	61	57	116	59	57	-	-	-	2	2	-
Mortality Rate	13.2	13.2	13.1	13.8	13.9	13.6	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	2	-	-	3	4	11	21	76	-
White Male	-	-	-	1	2	-	-	2	4	8	9	33	-
White Female	-	-	-	-	-	-	-	1	-	3	11	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	118	1,315.2	116	1,376.0	-	-	3	*
Diseases of the Heart	41	457.0	40	474.5	-	-	-	-
Malignant Neoplasms	24	267.5	23	272.8	-	-	-	-
Cerebrovascular Diseases	13	144.9	13	154.2	-	-	-	-
Accidents and Adverse Effects	4	*	4	*	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*	4	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	2	*	2	*	-	-	1	*
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Allegan County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	90,509	Total Live Births:	1,435	Total Deaths:	669
Rank Among Counties:	21	Teenage Mothers:	158	Infant Deaths:	7
Per Square Mile:	108.8	Low Weight Births:	70	Neonatal Deaths:	3
		First Births:	551	Postneonatal Deaths:	4
				Perinatal Deaths:	8
				Fetal Deaths:	6

MARRIAGE		**DIVORCE**	
Marriages:	713	Divorces:	426
Marriage Rate:	15.8	Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,435	15.9	1,403	15.9	18	12.2	13	13.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	158	110.1	152	108.3	5	*	1	*
Low Weight	70	48.8	67	47.8	1	*	2	*
Under 1,500 Grams	11	7.7	11	7.8	-	-	-	-
< 38 Weeks Gestation	208	144.9	204	145.4	3	*	1	*
Prenatal Care Began in 1st Trimester	1,185	825.8	1,165	830.4	11	611.1	8	615.4

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	4.9	7	5.0	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	4	*	4	*	-	-	-	-
Perinatal Deaths	8	5.6	8	5.7	-	-	-	-
Fetal Deaths	6	4.2	6	4.3	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	669	360	309	651	352	299	15	7	8	3	1	2
Mortality Rate	7.4	8.0	6.8	7.4	8.1	6.7	10.2	8.1	13.2	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	4	1	3	3	6	23	27	39	113	440	1
White Male	5	1	2	1	2	3	5	13	20	28	71	201	-
White Female	2	1	2	-	1	-	1	9	7	11	36	228	1
Black Male	-	-	-	-	-	-	-	1	-	-	4	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	7	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	669	739.2	651	739.3	15	1,020.4	10	35.9
Diseases of the Heart	233	257.4	229	260.1	3	*	1	*
Malignant Neoplasms	158	174.6	153	173.8	5	*	2	*
Cerebrovascular Diseases	42	46.4	39	44.3	2	*	-	-
Accidents and Adverse Effects	30	33.1	30	34.1	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	32	35.4	31	35.2	-	-	-	-
Pneumonia and Influenza	24	26.5	24	27.3	-	-	-	-
Diabetes Mellitus	20	22.1	18	20.4	2	*	-	-
Chronic Liver Disease and Cirrhosis	8	8.8	8	9.1	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	12	13.3	12	13.6	-	-	-	-
Atherosclerosis	10	11.0	10	11.4	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Alpena County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	30,605	Total Live Births:	382	Total Deaths:	298
Rank Among Counties:	46	Teenage Mothers:	45	Infant Deaths:	1
Per Square Mile:	53.9	Low Weight Births:	28	Neonatal Deaths:	-
		First Births:	144	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		DIVORCE	
Marriages:	253	Divorces:	156
Marriage Rate:	16.5	Divorce Rate:	10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	382	12.5	376	12.4	-	-	6	33.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	45	117.8	44	117.0	-	-	1	*
Low Weight	28	73.3	28	74.5	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	56	146.6	55	146.3	-	-	1	*
Prenatal Care Began in 1st Trimester	342	895.3	337	896.3	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	298	152	146	298	152	146	-	-	-	-	-	-
Mortality Rate	9.7	10.2	9.3	9.8	10.3	9.3	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	3	2	1	9	17	57	207	-
White Male	1	-	-	-	-	2	1	-	7	11	34	96	-
White Female	-	-	-	-	1	1	1	1	2	6	23	111	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	298	973.7	298	980.5	-	-	1	*
Diseases of the Heart	112	366.0	112	368.5	-	-	-	-
Malignant Neoplasms	89	290.8	89	292.8	-	-	1	*
Cerebrovascular Diseases	18	58.8	18	59.2	-	-	-	-
Accidents and Adverse Effects	7	22.9	7	23.0	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	29.4	9	29.6	-	-	-	-
Pneumonia and Influenza	7	22.9	7	23.0	-	-	-	-
Diabetes Mellitus	7	22.9	7	23.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Antrim County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	18,185	Total Live Births:	262	Total Deaths:	223
Rank Among Counties:	62	Teenage Mothers:	35	Infant Deaths:	3
Per Square Mile:	37.9	Low Weight Births:	15	Neonatal Deaths:	-
		First Births:	106	Postneonatal Deaths:	3
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	176	Divorces:	95		
Marriage Rate:	19.4	Divorce Rate:	10.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	262	14.4	254	14.2	-	-	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	133.6	32	126.0	-	-	2	*
Low Weight	15	57.3	15	59.1	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	27	103.1	27	106.3	-	-	-	-
Prenatal Care Began in 1st Trimester	175	667.9	169	665.4	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	223	115	108	222	115	107	-	-	-	1	-	1
Mortality Rate	12.3	12.9	11.6	12.4	13.1	11.7	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	1	2	2	2	7	8	20	34	144	-
White Male	3	-	-	1	1	2	1	6	3	10	17	71	-
White Female	-	-	-	-	1	-	1	1	5	10	17	72	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	223	1,226.3	222	1,238.4	-	-	3	*
Diseases of the Heart	73	401.4	72	401.7	-	-	-	-
Malignant Neoplasms	55	302.4	55	306.8	-	-	-	-
Cerebrovascular Diseases	15	82.5	15	83.7	-	-	-	-
Accidents and Adverse Effects	13	71.5	13	72.5	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	44.0	8	44.6	-	-	-	-
Pneumonia and Influenza	15	82.5	15	83.7	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Arenac County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	14,931	Total Live Births:	183	Total Deaths:	176
Rank Among Counties:	68	Teenage Mothers:	28	Infant Deaths:	-
Per Square Mile:	40.6	Low Weight Births:	5	Neonatal Deaths:	-
		First Births:	61	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	118	Divorces:	54		
Marriage Rate:	15.8	Divorce Rate:	7.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	183	12.3	180	12.2	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	28	153.0	28	155.6	-	-	-	-
Low Weight	5	*	5	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	19	103.8	18	100.0	-	-	-	-
Prenatal Care Began in 1st Trimester	146	797.8	144	800.0	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	176	95	81	176	95	81	-	-	-	-	-	-
Mortality Rate	11.8	13.0	10.6	11.9	13.2	10.8	-	-	-	-	-	-

	Age In Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	2	-	1	1	-	2	4	7	14	32	113	-
White Male	-	1	-	1	1	-	-	4	3	10	13	62	-
White Female	-	1	-	-	-	-	2	-	4	4	19	51	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	176	1,178.8	176	1,193.8	-	-	4	*
Diseases of the Heart	69	462.1	69	468.0	-	-	1	*
Malignant Neoplasms	43	288.0	43	291.7	-	-	-	-
Cerebrovascular Diseases	8	53.6	8	54.3	-	-	-	-
Accidents and Adverse Effects	5	*	5	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	60.3	9	61.0	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	1	*
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Baraga County

POPULATION

As of April 1, 1990:	7,954
Rank Among Counties:	80
Per Square Mile:	8.8

NATALITY

Total Live Births:	129
Teenage Mothers:	11
Low Weight Births:	9
First Births:	51

MORTALITY

Total Deaths:	95
Infant Deaths:	1
Neonatal Deaths:	-
Postneonatal Deaths:	1
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	57
Marriage Rate:	14.3

DIVORCE

Divorces:	34
Divorce Rate:	8.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	129	16.2	104	14.9	-	-	24	25.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	11	85.3	8	76.9	-	-	3	*
Low Weight	9	69.8	7	67.3	-	-	2	*
Under 1,500 Grams	2	*	1	*	-	-	1	*
< 38 Weeks Gestation	18	139.5	12	115.4	-	-	5	*
Prenatal Care Began in 1st Trimester	97	751.9	81	778.8	-	-	15	625.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	95	46	49	89	44	45	-	-	-	6	2	4
Mortality Rate	11.9	11.5	12.4	12.8	12.5	13.0	-	-	-	6.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	-	2	1	2	6	2	16	65	-
White Male	-	-	-	-	-	1	-	1	5	1	10	26	-
White Female	1	-	-	-	-	-	1	1	-	1	4	37	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	95	1,194.4	89	1,276.0	-	-	-	-
Diseases of the Heart	39	490.3	36	516.1	-	-	-	-
Malignant Neoplasms	20	251.4	20	286.7	-	-	-	-
Cerebrovascular Diseases	7	88.0	6	86.0	-	-	-	-
Accidents and Adverse Effects	4	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	*	2	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	1	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Barry County

POPULATION

As of April 1, 1990:	50,057
Rank Among Counties:	34
Per Square Mile:	89.4

NATALITY

Total Live Births:	706
Teenage Mothers:	67
Low Weight Births:	42
First Births:	268

MORTALITY

Total Deaths:	381
Infant Deaths:	6
Neonatal Deaths:	1
Postneonatal Deaths:	5
Perinatal Deaths:	4
Fetal Deaths:	4

MARRIAGE

Marriages:	402
Marriage Rate:	16.1

DIVORCE

Divorces:	257
Divorce Rate:	10.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	706	14.1	700	14.1	1	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	67	94.9	66	94.3	-	-	1	*
Low Weight	42	59.5	42	60.0	-	-	-	-
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	107	151.6	106	151.4	-	-	1	*
Prenatal Care Began in 1st Trimester	595	842.8	589	841.4	1	*	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	8.5	6	8.6	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	5	*	5	*	-	-	-	-
Perinatal Deaths	4	*	3	*	1	*	-	-
Fetal Deaths	4	*	3	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	381	203	178	377	201	176	1	-	1	2	1	1
Mortality Rate	7.6	8.1	7.1	7.6	8.1	7.1	*	-	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	-	-	-	3	5	2	9	17	33	57	249	-
White Male	5	-	-	-	2	4	2	5	12	15	39	117	-
White Female	1	-	-	-	1	1	-	4	4	18	18	129	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	381	761.1	377	759.8	1	*	3	*
Diseases of the Heart	126	251.7	126	254.0	-	-	-	-
Malignant Neoplasms	91	181.8	90	181.4	-	-	-	-
Cerebrovascular Diseases	25	49.9	25	50.4	-	-	-	-
Accidents and Adverse Effects	18	36.0	17	34.3	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	26.0	13	26.2	-	-	-	-
Pneumonia and Influenza	16	32.0	16	32.2	-	-	-	-
Diabetes Mellitus	13	26.0	13	26.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	3	*	3	*	-	-	-	-
Suicide	7	14.0	7	14.1	-	-	1	*
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Bay County

POPULATION	
As of April 1, 1990:	111,723
Rank Among Counties:	18
Per Square Mile:	249.8

NATALITY	
Total Live Births:	1,576
Teenage Mothers:	228
Low Weight Births:	104
First Births:	670

MORTALITY	
Total Deaths:	1,012
Infant Deaths:	18
Neonatal Deaths:	11
Postneonatal Deaths:	7
Perinatal Deaths:	17
Fetal Deaths:	7

MARRIAGE	
Marriages:	903
Marriage Rate:	16.2

DIVORCE	
Divorces:	464
Divorce Rate:	8.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,576	14.1	1,534	14.0	34	27.1	7	5.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	228	144.7	215	140.2	12	352.9	1	*
Low Weight	104	66.0	98	63.9	5	*	1	*
Under 1,500 Grams	21	13.3	20	13.0	1	*	-	-
< 38 Weeks Gestation	258	163.7	247	161.0	8	235.3	3	*
Prenatal Care Began in 1st Trimester	1,366	866.8	1,333	869.0	28	823.5	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	18	11.4	17	11.1	1	*	-	-
Neonatal Deaths	11	7.0	11	7.2	-	-	-	-
Postneonatal Deaths	7	4.4	6	3.9	1	*	-	-
Perinatal Deaths	17	10.7	17	11.0	-	-	-	-
Fetal Deaths	7	4.4	7	4.5	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,012	532	480	994	526	468	12	5	7	6	1	5
Mortality Rate	9.1	9.8	8.3	9.1	10.0	8.3	9.6	*	11.9	4.8	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	18	7	2	2	9	7	7	22	36	71	167	664	-
White Male	10	6	1	2	6	6	5	15	24	49	107	295	-
White Female	7	1	-	-	3	1	2	5	9	20	57	363	-
Black Male	1	-	-	-	-	-	-	2	-	-	1	1	-
Black Female	-	-	1	-	-	-	-	-	1	-	1	4	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	2	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,012	905.8	994	910.0	12	956.2	20	64.5
Diseases of the Heart	379	339.2	375	343.3	2	*	-	-
Malignant Neoplasms	250	223.8	245	224.3	4	*	1	*
Cerebrovascular Diseases	49	43.9	47	43.0	1	*	-	-
Accidents and Adverse Effects	54	48.3	51	46.7	2	*	11	35.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	41	36.7	41	37.5	-	-	-	-
Pneumonia and Influenza	19	17.0	19	17.4	-	-	-	-
Diabetes Mellitus	36	32.2	35	32.0	1	*	-	-
Chronic Liver Disease and Cirrhosis	15	13.4	15	13.7	-	-	-	-
Homicide	6	5.4	6	5.5	-	-	2	*
Suicide	13	11.6	13	11.9	-	-	1	*
Atherosclerosis	17	15.2	17	15.6	-	-	-	-
AIDS	4	*	4	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Benzie County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	12,200	Total Live Births:	178	Total Deaths:	114
Rank Among Counties:	71	Teenage Mothers:	22	Infant Deaths:	2
Per Square Mile:	37.9	Low Weight Births:	10	Neonatal Deaths:	-
		First Births:	77	Postneonatal Deaths:	2
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		**DIVORCE**	
Marriages:	135	Divorces:	51
Marriage Rate:	22.1	Divorce Rate:	8.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	178	14.6	171	14.4	1	*	6	22.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	22	123.6	21	122.8	-	-	1	*
Low Weight	10	56.2	10	58.5	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	24	134.8	22	128.7	-	-	2	*
Prenatal Care Began in 1st Trimester	111	623.6	106	619.9	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	114	65	49	111	63	48	-	-	-	3	2	1
Mortality Rate	9.3	10.8	7.9	9.3	10.8	8.0	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	1	-	-	6	2	6	23	74	-
White Male	1	-	-	-	1	-	-	3	-	5	14	39	-
White Female	1	-	-	-	-	-	-	3	2	-	7	35	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	114	934.4	111	933.1	-	-	1	*
Diseases of the Heart	31	254.1	30	252.2	-	-	-	-
Malignant Neoplasms	39	319.7	38	319.4	-	-	1	*
Cerebrovascular Diseases	9	73.8	9	75.7	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	3	*	3	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Berrien County

POPULATION	
As of April 1, 1990:	161,378
Rank Among Counties:	11
Per Square Mile:	280.1

NATALITY	
Total Live Births:	2,477
Teenage Mothers:	480
Low Weight Births:	206
First Births:	975

MORTALITY	
Total Deaths:	1,449
Infant Deaths:	26
Neonatal Deaths:	12
Postneonatal Deaths:	14
Perinatal Deaths:	29
Fetal Deaths:	19

MARRIAGE	
Marriages:	1,389
Marriage Rate:	17.2

DIVORCE	
Divorces:	747
Divorce Rate:	9.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,477	15.3	1,710	12.7	730	29.2	29	13.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	480	193.8	220	128.7	257	352.1	2	*
Low Weight	206	83.2	91	53.2	112	153.4	2	*
Under 1,500 Grams	33	13.3	17	9.9	16	21.9	-	-
< 38 Weeks Gestation	434	175.2	239	139.8	186	254.8	7	241.4
Prenatal Care Began in 1st Trimester	1,661	670.6	1,288	753.2	349	478.1	23	793.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	26	10.5	11	6.4	15	20.5	-	-
Neonatal Deaths	12	4.8	5	*	7	9.6	-	-
Postneonatal Deaths	14	5.7	6	3.5	8	11.0	-	-
Perinatal Deaths	29	11.6	13	7.6	14	19.0	2	*
Fetal Deaths	19	7.6	9	5.2	8	10.8	2	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,449	709	740	1,224	596	628	217	109	108	8	4	4
Mortality Rate	9.0	9.2	8.8	9.1	9.2	9.1	8.7	9.7	7.9	3.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	26	2	5	3	7	10	13	47	54	106	255	921	-
White Male	-	1	2	2	4	4	4	18	26	41	124	370	-
White Female	11	1	-	1	-	2	3	8	18	40	83	461	-
Black Male	9	-	1	-	2	3	3	14	5	14	19	39	-
Black Female	6	-	2	-	1	1	3	7	4	11	26	47	-
Other Male	-	-	-	-	-	-	-	-	1	-	1	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	2	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,449	897.9	1,224	912.1	217	868.5	17	36.9
Diseases of the Heart	462	286.3	408	304.0	54	216.1	-	-
Malignant Neoplasms	379	234.9	318	237.0	55	220.1	2	*
Cerebrovascular Diseases	115	71.3	94	70.0	21	84.1	-	-
Accidents and Adverse Effects	46	28.5	35	26.1	11	44.0	6	13.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	52	32.2	48	35.8	3	*	-	-
Pneumonia and Influenza	51	31.6	46	34.3	5	*	2	*
Diabetes Mellitus	35	21.7	30	22.4	5	*	-	-
Chronic Liver Disease and Cirrhosis	12	7.4	7	5.2	5	*	-	-
Homicide	16	9.9	7	5.2	9	36.0	2	*
Suicide	13	8.1	11	8.2	2	*	2	*
Atherosclerosis.	23	14.3	19	14.2	4	*	-	-
AIDS	3	*	1	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Branch County

POPULATION	
As of April 1, 1990:	41,502
Rank Among Counties:	37
Per Square Mile:	81.7

NATALITY	
Total Live Births:	539
Teenage Mothers:	76
Low Weight Births:	34
First Births:	197

MORTALITY	
Total Deaths:	385
Infant Deaths:	5
Neonatal Deaths:	4
Postneonatal Deaths:	1
Perinatal Deaths:	9
Fetal Deaths:	6

MARRIAGE	
Marriages:	329
Marriage Rate:	15.9

DIVORCE	
Divorces:	228
Divorce Rate:	11.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	539	13.0	533	13.2	1	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	76	141.0	75	140.7	-	-	1	*
Low Weight	34	63.1	34	63.8	-	-	-	-
Under 1,500 Grams	8	14.8	8	15.0	-	-	-	-
< 38 Weeks Gestation	66	122.4	64	120.1	1	*	1	*
Prenatal Care Began in 1st Trimester	356	660.5	352	660.4	1	*	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	9	16.5	9	16.7	-	-	-	-
Fetal Deaths	6	11.0	6	11.1	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	385	213	172	382	211	171	1	1	-	2	1	1
Mortality Rate	9.3	10.5	8.1	9.5	10.6	8.3	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	-	2	2	1	3	8	14	44	62	241	-
White Male	2	2	-	2	2	1	2	6	6	26	45	117	-
White Female	3	1	-	-	-	-	1	2	8	15	17	124	-
Black Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	385	927.7	382	945.2	1	*	7	58.1
Diseases of the Heart	123	296.4	121	299.4	1	*	-	-
Malignant Neoplasms	102	245.8	101	249.9	-	-	1	*
Cerebrovascular Diseases	23	55.4	23	56.9	-	-	-	-
Accidents and Adverse Effects	20	48.2	20	49.5	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	43.4	18	44.5	-	-	-	-
Pneumonia and Influenza	11	26.5	11	27.2	-	-	-	-
Diabetes Mellitus	16	38.6	16	39.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	14.5	6	14.8	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	5	*	5	*	-	-	1	*
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Calhoun County

POPULATION	
As of April 1, 1990:	135,982
Rank Among Counties:	15
Per Square Mile:	191.1

NATALITY	
Total Live Births:	2,075
Teenage Mothers:	395
Low Weight Births:	158
First Births:	837

MORTALITY	
Total Deaths:	1,377
Infant Deaths:	19
Neonatal Deaths:	7
Postneonatal Deaths:	12
Perinatal Deaths:	18
Fetal Deaths:	12

MARRIAGE	
Marriages:	1,250
Marriage Rate:	18.4

DIVORCE	
Divorces:	677
Divorce Rate:	10.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,075	15.3	1,701	14.2	354	24.5	19	10.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	395	190.4	274	161.1	118	333.3	3	*
Low Weight	158	76.1	106	62.3	52	146.9	-	-
Under 1,500 Grams	25	12.0	19	11.2	6	16.9	-	-
< 38 Weeks Gestation	358	172.5	258	151.7	98	276.8	2	*
Prenatal Care Began in 1st Trimester	1,572	757.6	1,343	789.5	211	596.0	17	894.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	19	9.2	14	8.2	5	*	-	-
Neonatal Deaths	7	3.4	4	*	3	*	-	-
Postneonatal Deaths	12	5.8	10	5.9	2	*	-	-
Perinatal Deaths	18	8.6	12	7.0	6	16.8	-	-
Fetal Deaths	12	5.7	8	4.7	4	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,377	725	652	1238	641	597	126	76	50	7	3	4
Mortality Rate	10.1	11.0	9.3	10.3	11.1	9.7	8.7	11.0	6.6	3.9	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	19	7	4	2	6	9	11	35	52	105	256	871	-
White Male	9	3	3	1	4	8	3	16	30	59	149	356	-
White Female	5	1	1	-	-	1	3	12	13	35	85	441	-
Black Male	4	2	-	1	2	-	2	5	7	8	9	36	-
Black Female	1	1	-	-	-	-	1	-	-	2	12	33	-
Other Male	-	-	-	-	-	-	-	-	1	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,377	1,012.6	1,238	1,034.1	126	870.3	19	49.4
Diseases of the Heart	431	317.0	385	321.6	45	310.8	-	-
Malignant Neoplasms	320	235.3	293	244.8	25	172.7	2	*
Cerebrovascular Diseases	105	77.2	99	82.7	5	*	-	-
Accidents and Adverse Effects	55	40.4	50	41.8	5	*	8	20.8
Chronic Obstructive Pulmonary Diseases and Allied Conditions	67	49.3	61	51.0	6	41.4	1	*
Pneumonia and Influenza	64	47.1	62	51.8	2	*	-	-
Diabetes Mellitus	39	28.7	31	25.9	8	55.3	-	-
Chronic Liver Disease and Cirrhosis	12	8.8	11	9.2	1	*	-	-
Homicide	10	7.4	8	6.7	2	*	1	*
Suicide	19	14.0	19	15.9	-	-	1	*
Atherosclerosis	24	17.6	21	17.5	3	*	-	-
AIDS	8	5.9	4	*	3	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Cass County

POPULATION	
As of April 1, 1990:	49,477
Rank Among Counties:	35
Per Square Mile:	99.7

NATALITY	
Total Live Births:	541
Teenage Mothers:	113
Low Weight Births:	34
First Births:	232

MORTALITY	
Total Deaths:	453
Infant Deaths:	6
Neonatal Deaths:	1
Postneonatal Deaths:	5
Perinatal Deaths:	3
Fetal Deaths:	3

MARRIAGE	
Marriages:	367
Marriage Rate:	14.8

DIVORCE	
Divorces:	265
Divorce Rate:	10.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	541	10.9	468	10.4	69	18.4	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	113	208.9	97	207.3	15	217.4	1	*
Low Weight	34	62.8	25	53.4	9	130.4	-	-
Under 1,500 Grams	6	11.1	6	12.8	-	-	-	-
< 38 Weeks Gestation	85	157.1	65	138.9	18	260.9	2	*
Prenatal Care Began in 1st Trimester	341	630.3	309	660.3	30	434.8	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	11.1	5	*	1	*	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	5	*	4	*	1	*	-	-
Perinatal Deaths	3	*	2	*	1	*	-	-
Fetal Deaths	3	*	2	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	453	236	217	406	210	196	41	22	19	6	4	2
Mortality Rate	9.2	9.7	8.6	9.0	9.5	8.6	10.9	12.4	9.6	9.0	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	4	2	4	4	5	3	16	15	28	86	280	-
White Male	5	2	-	3	1	3	1	10	8	13	51	113	-
White Female	-	-	2	1	2	1	1	5	4	12	27	141	-
Black Male	1	1	-	-	-	-	-	1	2	1	2	14	-
Black Female	-	1	-	-	1	1	-	-	1	1	5	9	-
Other Male	-	-	-	-	-	-	1	-	-	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	453	915.6	406	901.0	41	1,092.8	14	98.9
Diseases of the Heart	160	323.4	143	317.4	14	373.1	1	*
Malignant Neoplasms	106	214.2	93	206.4	12	319.8	2	*
Cerebrovascular Diseases	37	74.8	34	75.5	2	*	-	-
Accidents and Adverse Effects	32	64.7	25	55.5	6	159.9	7	49.4
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	40.4	19	42.2	1	*	-	-
Pneumonia and Influenza	19	38.4	18	39.9	1	*	-	-
Diabetes Mellitus	11	22.2	10	22.2	1	*	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	4	*	2	*	2	*	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Charlevoix County

POPULATION

As of April 1, 1990:	21,468
Rank Among Counties:	56
Per Square Mile:	51.0

NATALITY

Total Live Births:	284
Teenage Mothers:	36
Low Weight Births:	13
First Births:	111

MORTALITY

Total Deaths:	212
Infant Deaths:	2
Neonatal Deaths:	2
Postneonatal Deaths:	-
Perinatal Deaths:	5
Fetal Deaths:	4

MARRIAGE

Marriages:	234
Marriage Rate:	21.8

DIVORCE

Divorces:	110
Divorce Rate:	10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	284	13.2	277	13.2	-	-	7	16.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	126.8	34	122.7	-	-	2	*
Low Weight	13	45.8	13	46.9	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	41	144.4	39	140.8	-	-	2	*
Prenatal Care Began in 1st Trimester	227	799.3	223	805.1	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	212	112	100	205	106	99	1	1	-	6	5	1
Mortality Rate	9.9	10.7	9.1	9.7	10.3	9.2	*	*	-	14.3	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	-	1	1	3	5	9	13	30	147	-
White Male	1	-	-	-	-	-	2	2	5	7	21	68	-
White Female	1	1	-	-	1	-	1	1	3	5	9	77	-
Black Male	-	-	-	-	-	1	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	2	-	1	-	2	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	212	987.5	205	974.7	1	*	2	*
Diseases of the Heart	67	312.1	66	313.8	-	-	-	-
Malignant Neoplasms	57	265.5	55	261.5	-	-	-	-
Cerebrovascular Diseases	14	65.2	14	66.6	-	-	-	-
Accidents and Adverse Effects	12	55.9	10	47.5	1	*	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	27.9	6	28.5	-	-	-	-
Pneumonia and Influenza	6	27.9	6	28.5	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Cheboygan County

POPULATION

As of April 1, 1990:	21,396
Rank Among Counties:	57
Per Square Mile:	29.7

NATALITY

Total Live Births:	293
Teenage Mothers:	46
Low Weight Births:	21
First Births:	122

MORTALITY

Total Deaths:	244
Infant Deaths:	3
Neonatal Deaths:	1
Postneonatal Deaths:	2
Perinatal Deaths:	3
Fetal Deaths:	2

MARRIAGE

Marriages:	180
Marriage Rate:	16.8

DIVORCE

Divorces:	116
Divorce Rate:	10.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	293	13.7	280	13.4	1	*	10	18.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	46	157.0	43	153.6	1	*	1	*
Low Weight	21	71.7	20	71.4	-	-	1	*
Under 1,500 Grams	6	20.5	6	21.4	-	-	-	-
< 38 Weeks Gestation	50	170.6	47	167.9	-	-	2	*
Prenatal Care Began in 1st Trimester	247	843.0	238	850.0	1	*	6	600.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	244	132	112	240	129	111	-	-	-	4	3	1
Mortality Rate	11.4	12.7	10.2	11.5	12.8	10.3	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	-	3	-	1	7	5	20	40	165	-
White Male	3	-	-	-	2	-	-	6	3	11	22	82	-
White Female	-	-	-	-	1	-	1	-	2	8	17	82	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	244	1,140.3	240	1,151.2	-	-	3	*
Diseases of the Heart	82	383.2	80	383.7	-	-	-	-
Malignant Neoplasms	72	336.5	72	345.4	-	-	-	-
Cerebrovascular Diseases	14	65.4	14	67.2	-	-	-	-
Accidents and Adverse Effects	8	37.4	8	38.4	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	32.7	7	33.6	-	-	-	-
Pneumonia and Influenza	10	46.7	10	48.0	-	-	-	-
Diabetes Mellitus	5	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Chippewa County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	34,604	Total Live Births:	402	Total Deaths:	283
Rank Among Counties:	45	Teenage Mothers:	57	Infant Deaths:	2
Per Square Mile:	21.8	Low Weight Births:	15	Neonatal Deaths:	-
		First Births:	169	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		**DIVORCE**			
Marriages:	290	Divorces:	117		
Marriage Rate:	16.8	Divorce Rate:	6.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	402	11.6	316	11.1	3	*	81	20.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	57	141.8	39	123.4	1	*	17	209.9
Low Weight	15	37.3	12	38.0	-	-	3	*
Under 1,500 Grams	2	*	-	-	-	-	2	*
< 38 Weeks Gestation	52	129.4	41	129.7	-	-	11	135.8
Prenatal Care Began in 1st Trimester	311	773.6	245	775.3	2	*	64	790.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	1	*	-	-	1	*
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	1	*	-	-	1	*
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	283	152	131	247	133	114	1	1	-	35	18	17
Mortality Rate	8.2	7.9	8.5	8.7	8.9	8.5	*	*	-	8.8	8.8	8.8

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	1	1	1	4	6	3	5	20	47	192	-
White Male	-	1	-	-	-	-	2	1	3	12	30	84	-
White Female	1	-	1	-	1	1	3	1	1	4	8	93	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	1	-	1	1	1	-	2	5	7	-
Other Female	1	-	-	-	-	2	-	-	-	2	4	8	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	283	817.8	247	868.6	1	*	4	*
Diseases of the Heart	91	263.0	77	270.8	-	-	-	-
Malignant Neoplasms	65	187.8	61	214.6	-	-	1	*
Cerebrovascular Diseases	18	52.0	17	59.8	-	-	-	-
Accidents and Adverse Effects	9	26.0	7	24.6	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	60.7	18	63.3	-	-	-	-
Pneumonia and Influenza	10	28.9	9	31.7	-	-	-	-
Diabetes Mellitus	7	20.2	7	24.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	3	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	4	*	2	*	-	-	-	-
Atherosclerosis	1	*	-	-	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Clare County

POPULATION	
As of April 1, 1990:	24,952
Rank Among Counties:	52
Per Square Mile:	43.8

NATALITY	
Total Live Births:	376
Teenage Mothers:	70
Low Weight Births:	25
First Births:	151

MORTALITY	
Total Deaths:	316
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	4
Fetal Deaths:	3

MARRIAGE	
Marriages:	214
Marriage Rate:	17.2

DIVORCE	
Divorces:	137
Divorce Rate:	11.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	376	15.1	372	15.1	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	70	186.2	69	185.5	-	-	1	*
Low Weight	25	66.5	25	67.2	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	68	180.9	68	182.8	-	-	-	-
Prenatal Care Began in 1st Trimester	318	845.7	316	849.5	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	316	166	150	314	165	149	-	-	-	-	-	-
Mortality Rate	12.7	13.8	11.6	12.7	13.8	11.7	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	3	3	7	12	21	56	210	-
White Male	2	-	-	-	-	2	3	3	10	13	32	100	-
White Female	-	2	-	-	-	1	-	4	2	8	24	108	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	316	1,266.4	314	1,271.5	-	-	2	*
Diseases of the Heart	116	464.9	115	465.7	-	-	-	-
Malignant Neoplasms	85	340.7	85	344.2	-	-	-	-
Cerebrovascular Diseases	21	84.2	21	85.0	-	-	-	-
Accidents and Adverse Effects	8	32.1	8	32.4	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	72.1	18	72.9	-	-	-	-
Pneumonia and Influenza	15	60.1	15	60.7	-	-	-	-
Diabetes Mellitus	7	28.1	7	28.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Clinton County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	57,883	Total Live Births:	832	Total Deaths:	373
Rank Among Counties:	29	Teenage Mothers:	63	Infant Deaths:	6
Per Square Mile:	101.0	Low Weight Births:	44	Neonatal Deaths:	5
		First Births:	306	Postneonatal Deaths:	1
				Perinatal Deaths:	10
				Fetal Deaths:	6
MARRIAGE		**DIVORCE**			
Marriages:	443	Divorces:	245		
Marriage Rate:	15.3	Divorce Rate:	8.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	832	14.4	818	14.3	4	*	7	14.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	63	75.7	60	73.3	1	*	1	*
Low Weight	44	52.9	43	52.6	-	-	1	*
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	116	139.4	115	140.6	-	-	1	*
Prenatal Care Began in 1st Trimester	697	837.7	685	837.4	4	*	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	7.2	5	*	1	*	-	-
Neonatal Deaths	5	*	4	*	1	*	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	10	11.9	9	10.9	1	*	-	-
Fetal Deaths	6	7.2	6	7.3	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	373	195	178	371	195	176	1	-	1	1	-	1
Mortality Rate	6.4	6.8	6.1	6.5	6.8	6.1	*	-	*	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	2	1	3	4	13	18	23	53	249	-
White Male	4	1	-	1	1	3	2	10	8	12	28	125	-
White Female	1	-	-	1	-	-	2	2	10	11	25	124	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	1	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	373	644.4	371	648.9	1	*	4	*
Diseases of the Heart	117	202.1	116	202.9	-	-	-	-
Malignant Neoplasms	87	150.3	87	152.2	-	-	-	-
Cerebrovascular Diseases	25	43.2	25	43.7	-	-	-	-
Accidents and Adverse Effects	21	36.3	21	36.7	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	19.0	11	19.2	-	-	-	-
Pneumonia and Influenza	14	24.2	14	24.5	-	-	-	-
Diabetes Mellitus	11	19.0	11	19.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Crawford County

POPULATION

As of April 1, 1990:	12,260
Rank Among Counties:	70
Per Square Mile:	21.9

NATALITY

Total Live Births:	164
Teenage Mothers:	35
Low Weight Births:	12
First Births:	50

MORTALITY

Total Deaths:	134
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	3
Fetal Deaths:	2

MARRIAGE

Marriages:	96
Marriage Rate:	15.7

DIVORCE

Divorces:	77
Divorce Rate:	12.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	164	13.4	157	13.3	2	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	213.4	32	203.8	2	*	1	*
Low Weight	12	73.2	12	76.4	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	19	115.9	17	108.3	1	*	1	*
Prenatal Care Began in 1st Trimester	129	786.6	126	802.5	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	134	64	70	134	64	70	-	-	-	-	-	-
Mortality Rate	10.9	10.2	11.7	11.3	10.8	11.9	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	1	1	3	2	4	7	23	90	-
White Male	-	-	-	1	1	1	2	-	2	4	13	40	-
White Female	2	-	-	-	-	-	1	2	2	3	10	50	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	134	1,093.0	134	1,134.7	-	-	2	*
Diseases of the Heart	34	277.3	34	287.9	-	-	-	-
Malignant Neoplasms	36	293.6	36	304.9	-	-	-	-
Cerebrovascular Diseases	8	65.3	8	67.7	-	-	-	-
Accidents and Adverse Effects	10	81.6	10	84.7	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	9	73.4	9	76.2	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Delta County

POPULATION

As of April 1, 1990:	37,780
Rank Among Counties:	41
Per Square Mile:	32.2

NATALITY

Total Live Births:	411
Teenage Mothers:	53
Low Weight Births:	28
First Births:	156

MORTALITY

Total Deaths:	368
Infant Deaths:	4
Neonatal Deaths:	3
Postneonatal Deaths:	1
Perinatal Deaths:	6
Fetal Deaths:	4

MARRIAGE

Marriages:	308
Marriage Rate:	16.3

DIVORCE

Divorces:	136
Divorce Rate:	7.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	411	10.9	398	10.6	1	*	12	13.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	53	129.0	52	130.7	-	-	1	*
Low Weight	28	68.1	26	65.3	-	-	2	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	59	143.6	55	138.2	-	-	4	*
Prenatal Care Began in 1st Trimester	302	734.8	295	741.2	1	*	6	500.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	3	*	3	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	6	14.5	5	*	-	-	-	-
Fetal Deaths	4	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	368	206	162	366	206	160	-	-	-	1	-	1
Mortality Rate	9.7	11.2	8.4	9.9	11.5	8.5	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	-	-	1	2	1	10	13	24	53	260	-
White Male	4	-	-	-	1	2	1	9	8	18	30	133	-
White Female	-	-	-	-	-	-	-	1	4	6	23	126	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	368	974.1	366	993.2	-	-	1	*
Diseases of the Heart	117	309.7	117	317.5	-	-	-	-
Malignant Neoplasms	104	275.3	102	276.8	-	-	1	*
Cerebrovascular Diseases	27	71.5	27	73.3	-	-	-	-
Accidents and Adverse Effects	11	29.1	11	29.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	26.5	10	27.1	-	-	-	-
Pneumonia and Influenza	6	15.9	6	16.3	-	-	-	-
Diabetes Mellitus	15	39.7	15	40.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Dickinson County

POPULATION	
As of April 1, 1990:	26,831
Rank Among Counties:	48
Per Square Mile:	34.8

NATALITY	
Total Live Births:	322
Teenage Mothers:	34
Low Weight Births:	18
First Births:	123

MORTALITY	
Total Deaths:	307
Infant Deaths:	2
Neonatal Deaths:	2
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	1

MARRIAGE	
Marriages:	228
Marriage Rate:	17.0

DIVORCE	
Divorces:	132
Divorce Rate:	9.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	322	12.0	316	11.9	-	-	6	24.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	34	105.6	33	104.4	-	-	1	*
Low Weight	18	55.9	17	53.8	-	-	1	*
Under 1,500 Grams	6	18.6	6	19.0	-	-	-	-
< 38 Weeks Gestation	43	133.5	42	132.9	-	-	1	*
Prenatal Care Began in 1st Trimester	273	847.8	269	851.3	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	307	159	148	305	158	147	-	-	-	2	1	1
Mortality Rate	11.4	12.1	10.8	11.5	12.1	10.9	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	4	-	3	4	7	11	49	226	-
White Male	2	-	-	-	3	-	3	3	5	5	33	104	-
White Female	-	-	-	1	1	-	-	1	1	6	16	121	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	307	1,144.2	305	1,148.4	-	-	5	*
Diseases of the Heart	104	387.6	103	387.8	-	-	1	*
Malignant Neoplasms	64	238.5	63	237.2	-	-	1	*
Cerebrovascular Diseases	23	85.7	23	86.6	-	-	-	-
Accidents and Adverse Effects	16	59.6	16	60.2	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	44.7	12	45.2	-	-	-	-
Pneumonia and Influenza	6	22.4	6	22.6	-	-	-	-
Diabetes Mellitus	11	41.0	11	41.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	6	22.4	6	22.6	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Eaton County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	92,879	Total Live Births:	1,192	Total Deaths:	620
Rank Among Counties:	19	Teenage Mothers:	135	Infant Deaths:	4
Per Square Mile:	160.3	Low Weight Births:	71	Neonatal Deaths:	1
		First Births:	508	Postneonatal Deaths:	3
				Perinatal Deaths:	8
				Fetal Deaths:	8
MARRIAGE		**DIVORCE**			
Marriages:	775	Divorces:	528		
Marriage Rate:	16.7	Divorce Rate:	11.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,192	12.8	1,143	12.9	43	12.8	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	135	113.3	125	109.4	9	209.3	1	*
Low Weight	71	59.6	66	57.7	5	*	-	-
Under 1,500 Grams	8	6.7	8	7.0	-	-	-	-
< 38 Weeks Gestation	171	143.5	161	140.9	9	209.3	-	-
Prenatal Care Began in 1st Trimester	996	835.6	963	842.5	30	697.7	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	3	*	1	*	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	3	*	2	*	1	*	-	-
Perinatal Deaths	8	6.7	8	7.0	-	-	-	-
Fetal Deaths	8	6.7	8	7.0	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	620	304	316	604	293	311	13	9	4	3	2	1
Mortality Rate	6.7	6.7	6.6	6.8	6.8	6.8	3.9	5.6	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	2	-	7	1	3	17	24	55	85	422	-
White Male	1	-	1	-	5	1	1	9	18	27	51	179	-
White Female	2	-	1	-	2	-	2	6	5	25	32	236	-
Black Male	1	-	-	-	-	-	-	-	1	1	2	4	-
Black Female	-	-	-	-	-	-	-	1	-	1	-	2	-
Other Male	-	-	-	-	-	-	-	1	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	620	667.5	604	682.4	13	388.3	9	33.0
Diseases of the Heart	184	198.1	182	205.6	1	*	-	-
Malignant Neoplasms	168	180.9	162	183.0	6	179.2	1	*
Cerebrovascular Diseases	40	43.1	40	45.2	-	-	-	-
Accidents and Adverse Effects	30	32.3	29	32.8	1	*	6	22.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33	35.5	33	37.3	-	-	-	-
Pneumonia and Influenza	31	33.4	29	32.8	1	*	-	-
Diabetes Mellitus	15	16.2	15	16.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	8	8.6	8	9.0	-	-	1	*
Atherosclerosis	10	10.8	10	11.3	-	-	-	-
AIDS	1	*	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Emmet County

POPULATION

As of April 1, 1990:	25,040
Rank Among Counties:	51
Per Square Mile:	53.5

NATALITY

Total Live Births:	359
Teenage Mothers:	41
Low Weight Births:	21
First Births:	148

MORTALITY

Total Deaths:	255
Infant Deaths:	6
Neonatal Deaths:	5
Postneonatal Deaths:	1
Perinatal Deaths:	11
Fetal Deaths:	6

MARRIAGE

Marriages:	292
Marriage Rate:	23.3

DIVORCE

Divorces:	154
Divorce Rate:	12.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	359	14.3	347	14.4	1	*	11	14.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	41	114.2	37	106.6	1	*	3	*
Low Weight	21	58.5	21	60.5	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	58	161.6	57	164.3	-	-	1	*
Prenatal Care Began in 1st Trimester	288	802.2	282	812.7	-	-	6	545.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	16.7	6	17.3	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	11	30.1	11	31.2	-	-	-	-
Fetal Deaths	6	16.4	6	17.0	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	255	123	132	247	122	125	-	-	-	8	1	7
Mortality Rate	10.2	10.1	10.3	10.2	10.5	10.0	-	-	-	10.6	*	20.3

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	-	2	2	3	4	6	11	40	180	-
White Male	3	-	-	-	1	1	3	3	4	2	25	80	-
White Female	3	1	-	-	1	1	-	1	2	8	13	95	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	1	5	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	255	1,018.4	247	1,022.6	-	-	3	*
Diseases of the Heart	77	307.5	74	306.4	-	-	-	-
Malignant Neoplasms	68	271.6	66	273.2	-	-	-	-
Cerebrovascular Diseases	10	39.9	10	41.4	-	-	1	*
Accidents and Adverse Effects	8	31.9	7	29.0	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	15	59.9	15	62.1	-	-	-	-
Pneumonia and Influenza	12	47.9	12	49.7	-	-	-	-
Diabetes Mellitus	6	24.0	6	24.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Genesee County

POPULATION
As of April 1, 1990: 430,459
Rank Among Counties: 5
Per Square Mile: 671.0

NATALITY
Total Live Births: 7,261
Teenage Mothers: 1,236
Low Weight Births: 646
First Births: 2,846

MORTALITY
Total Deaths: 3,642
Infant Deaths: 73
Neonatal Deaths: 47
Postneonatal Deaths: 26
Perinatal Deaths: 64
Fetal Deaths: 27

MARRIAGE
Marriages: 3,396
Marriage Rate: 15.8

DIVORCE
Divorces: 1,730
Divorce Rate: 8.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	7,261	16.9	4,974	14.6	2,217	26.2	63	10.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,236	170.2	613	123.2	610	275.1	9	142.9
Low Weight	646	89.0	320	64.3	325	146.6	1	*
Under 1,500 Grams	128	17.6	65	13.1	63	28.4	-	-
< 38 Weeks Gestation	1,338	184.3	770	154.8	562	253.5	5	*
Prenatal Care Began in 1st Trimester	5,778	795.8	4,247	853.8	1,483	668.9	45	714.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	73	10.1	35	7.0	37	16.7	1	*
Neonatal Deaths	47	6.5	26	5.2	21	9.5	-	-
Postneonatal Deaths	26	3.6	9	1.8	16	7.2	1	*
Perinatal Deaths	64	8.8	37	7.4	27	12.1	-	-
Fetal Deaths	27	3.7	16	3.2	11	4.9	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	3,642	1,910	1,732	2,956	1,534	1,422	659	365	294	27	11	16
Mortality Rate	8.5	9.3	7.7	8.7	9.4	8.1	7.8	9.3	6.5	4.4	3.7	5.0

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	73	16	12	10	28	42	35	126	188	315	750	2,045	-
White Male	16	7	4	7	16	20	15	61	89	129	355	815	-
White Female	19	3	3	-	1	7	7	25	44	93	248	972	-
Black Male	18	6	3	2	9	11	11	25	35	56	83	106	-
Black Female	19	-	2	1	2	4	2	14	17	34	58	141	-
Other Male	1	2	-	-	-	-	-	1	2	-	-	5	-
Other Female	-	-	-	-	-	-	-	-	1	3	6	6	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,642	846.1	2,956	870.4	659	778.4	68	53.4
Diseases of the Heart	1,276	296.4	1,072	315.7	201	237.4	-	-
Malignant Neoplasms	872	202.6	719	211.7	146	172.5	6	4.7
Cerebrovascular Diseases	230	53.4	187	55.1	41	48.4	-	-
Accidents and Adverse Effects	146	33.9	117	34.5	25	29.5	33	25.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	158	36.7	140	41.2	14	16.5	-	-
Pneumonia and Influenza	100	23.2	86	25.3	12	14.2	1	*
Diabetes Mellitus	100	23.2	76	22.4	22	26.0	-	-
Chronic Liver Disease and Cirrhosis	30	7.0	17	5.0	13	15.4	1	*
Homicide	57	13.2	20	5.9	37	43.7	6	4.7
Suicide	33	7.7	29	8.5	4	*	4	*
Atherosclerosis	35	8.1	32	9.4	3	*	-	-
AIDS	26	6.0	20	5.9	6	7.1	1	*

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Gladwin County

POPULATION

As of April 1, 1990:	21,896
Rank Among Counties:	55
Per Square Mile:	43.3

NATALITY

Total Live Births:	299
Teenage Mothers:	48
Low Weight Births:	16
First Births:	114

MORTALITY

Total Deaths:	267
Infant Deaths:	2
Neonatal Deaths:	-
Postneonatal Deaths:	2
Perinatal Deaths:	2
Fetal Deaths:	2

MARRIAGE

Marriages:	187
Marriage Rate:	17.1

DIVORCE

Divorces:	129
Divorce Rate:	11.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	299	13.7	296	13.6	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	160.5	48	162.2	-	-	-	-
Low Weight	16	53.5	15	50.7	-	-	1	*
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	48	160.5	48	162.2	-	-	-	-
Prenatal Care Began in 1st Trimester	238	796.0	236	797.3	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	267	150	117	267	150	117	-	-	-	-	-	-
Mortality Rate	12.2	13.9	10.5	12.3	14.0	10.6	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	-	4	5	6	23	51	174	-
White Male	1	1	-	-	-	-	3	3	5	18	32	87	-
White Female	1	1	-	-	-	-	1	2	1	5	19	87	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	267	1,219.4	267	1,229.2	-	-	2	*
Diseases of the Heart	103	470.4	103	474.2	-	-	-	-
Malignant Neoplasms	65	296.9	65	299.2	-	-	-	-
Cerebrovascular Diseases	25	114.2	25	115.1	-	-	-	-
Accidents and Adverse Effects	7	32.0	7	32.2	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	73.1	16	73.7	-	-	-	-
Pneumonia and Influenza	11	50.2	11	50.6	-	-	-	-
Diabetes Mellitus	-	-	-	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Gogebic County

POPULATION

As of April 1, 1990:	18,052
Rank Among Counties:	63
Per Square Mile:	16.3

NATALITY

Total Live Births:	178
Teenage Mothers:	22
Low Weight Births:	8
First Births:	63

MORTALITY

Total Deaths:	264
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	3
Fetal Deaths:	3

MARRIAGE

Marriages:	144
Marriage Rate:	16.0

DIVORCE

Divorces:	42
Divorce Rate:	4.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	178	9.9	173	9.9	1	*	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	22	123.6	21	121.4	1	*	-	-
Low Weight	8	44.9	8	46.2	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	22	123.6	22	127.2	-	-	-	-
Prenatal Care Began in 1st Trimester	143	803.4	141	815.0	1	*	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	264	127	137	261	125	136	-	-	-	3	2	1
Mortality Rate	14.6	14.3	14.9	14.9	14.8	15.0	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	1	1	3	5	1	6	43	204	-
White Male	-	-	-	-	1	-	2	3	1	2	26	90	-
White Female	-	-	-	-	-	1	1	2	-	3	16	113	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	264	1,462.4	261	1,491.7	-	-	1	*
Diseases of the Heart	85	470.9	84	480.1	-	-	-	-
Malignant Neoplasms	69	382.2	68	388.6	-	-	-	-
Cerebrovascular Diseases	26	144.0	26	148.6	-	-	-	-
Accidents and Adverse Effects	4	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	60.9	11	62.9	-	-	-	-
Pneumonia and Influenza	11	60.9	11	62.9	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	3	*	3	*	-	-	1	*
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Grand Traverse County

POPULATION

As of April 1, 1990:	64,273
Rank Among Counties:	27
Per Square Mile:	137.9

NATALITY

Total Live Births:	921
Teenage Mothers:	88
Low Weight Births:	58
First Births:	393

MORTALITY

Total Deaths:	501
Infant Deaths:	10
Neonatal Deaths:	7
Postneonatal Deaths:	3
Perinatal Deaths:	11
Fetal Deaths:	5

MARRIAGE

Marriages:	671
Marriage Rate:	20.9

DIVORCE

Divorces:	355
Divorce Rate:	11.0

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	921	14.3	896	14.2	1	*	23	26.2

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	88	95.5	82	91.5	-	-	5	*
Low Weight	58	63.0	58	64.7	-	-	-	-
Under 1,500 Grams	14	15.2	14	15.6	-	-	-	-
< 38 Weeks Gestation	155	168.3	152	169.6	-	-	3	*
Prenatal Care Began in 1st Trimester	669	726.4	658	734.4	-	-	10	434.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	10.9	10	11.2	-	-	-	-
Neonatal Deaths	7	7.6	7	7.8	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	11	11.9	11	12.2	-	-	-	-
Fetal Deaths	5	*	5	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	501	260	241	495	257	238	2	1	1	4	2	2
Mortality Rate	7.8	8.3	7.3	7.8	8.4	7.3	*	*	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	-	3	3	1	1	2	16	18	21	69	357	-
White Male	7	-	3	3	-	-	2	8	10	17	38	169	-
White Female	3	-	-	-	1	1	-	6	7	4	30	186	-
Black Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	501	779.5	495	784.0	2	*	7	37.9
Diseases of the Heart	166	258.3	165	261.3	-	-	-	-
Malignant Neoplasms	135	210.0	134	212.2	-	-	1	*
Cerebrovascular Diseases	33	51.3	33	52.3	-	-	-	-
Accidents and Adverse Effects	19	29.3	19	30.1	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	29.6	19	30.1	-	-	-	-
Pneumonia and Influenza	12	18.7	12	19.0	-	-	-	-
Diabetes Mellitus	12	18.7	12	19.0	-	-	1	*
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	10.9	7	11.1	-	-	-	-
Atherosclerosis	6	9.3	6	9.5	-	-	-	-
AIDS	2	*	-	-	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Gratiot County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	38,982	Total Live Births:	547	Total Deaths:	398
Rank Among Counties:	39	Teenage Mothers:	69	Infant Deaths:	4
Per Square Mile:	68.3	Low Weight Births:	33	Neonatal Deaths:	2
		First Births:	220	Postneonatal Deaths:	2
				Perinatal Deaths:	3
				Fetal Deaths:	1

MARRIAGE		DIVORCE	
Marriages:	292	Divorces:	153
Marriage Rate:	15.0	Divorce Rate:	7.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	547	14.0	540	14.1	2	*	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	69	126.1	68	125.9	1	*	-	-
Low Weight	33	60.3	32	59.3	-	-	1	*
Under 1,500 Grams	9	16.5	9	16.7	-	-	-	-
< 38 Weeks Gestation	92	168.2	91	168.5	-	-	1	*
Prenatal Care Began in 1st Trimester	438	800.7	433	801.9	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	398	186	212	396	185	211	-	-	-	2	1	1
Mortality Rate	10.2	9.8	10.6	10.3	10.0	10.6	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	1	1	2	1	2	6	9	30	49	292	-
White Male	2	-	1	-	2	-	1	4	5	14	31	125	-
White Female	2	1	-	1	-	1	1	2	4	15	18	166	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	398	1,021.0	396	1,031.3	-	-	5	*
Diseases of the Heart	165	423.3	164	427.1	-	-	-	-
Malignant Neoplasms	69	177.0	68	177.1	-	-	2	*
Cerebrovascular Diseases	29	74.4	29	75.5	-	-	-	-
Accidents and Adverse Effects	11	28.2	11	28.6	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	46.2	18	46.9	-	-	-	-
Pneumonia and Influenza	32	82.1	32	83.3	-	-	-	-
Diabetes Mellitus	10	25.7	10	26.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Hillsdale County

POPULATION

As of April 1, 1990:	43,431
Rank Among Counties:	36
Per Square Mile:	72.0

NATALITY

Total Live Births:	553
Teenage Mothers:	89
Low Weight Births:	26
First Births:	217

MORTALITY

Total Deaths:	389
Infant Deaths:	3
Neonatal Deaths:	2
Postneonatal Deaths:	1
Perinatal Deaths:	6
Fetal Deaths:	4

MARRIAGE

Marriages:	325
Marriage Rate:	15.0

DIVORCE

Divorces:	278
Divorce Rate:	12.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	553	12.7	551	12.8	1	*	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	89	160.9	88	159.7	-	-	1	*
Low Weight	26	47.0	26	47.2	-	-	-	-
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	88	159.1	88	159.7	-	-	-	-
Prenatal Care Began in 1st Trimester	370	669.1	369	669.7	1	*	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	6	10.8	6	10.8	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	389	197	192	386	194	192	1	1	-	2	2	-
Mortality Rate	9.0	9.2	8.7	9.0	9.2	8.8	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	3	-	2	3	6	3	9	18	16	72	254	-
White Male	1	3	-	-	1	4	1	5	9	9	42	119	-
White Female	2	-	-	2	2	1	2	4	8	7	30	134	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	389	895.7	386	896.5	1	*	8	60.8
Diseases of the Heart	116	267.1	115	267.1	1	*	-	-
Malignant Neoplasms	86	198.0	85	197.4	-	-	-	-
Cerebrovascular Diseases	18	41.4	18	41.8	-	-	-	-
Accidents and Adverse Effects	28	64.5	27	62.7	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	46.1	20	46.4	-	-	-	-
Pneumonia and Influenza	18	41.4	18	41.8	-	-	-	-
Diabetes Mellitus	18	41.4	18	41.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	3	*	3	*	-	-	-	-
Suicide	6	13.8	6	13.9	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Houghton County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	35,446	Total Live Births:	411	Total Deaths:	409
Rank Among Counties:	43	Teenage Mothers:	39	Infant Deaths:	-
Per Square Mile:	35.0	Low Weight Births:	18	Neonatal Deaths:	-
		First Births:	131	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		**DIVORCE**			
Marriages:	267	Divorces:	119		
Marriage Rate:	15.1	Divorce Rate:	6.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	411	11.6	394	11.4	1	*	16	20.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	39	94.9	39	99.0	-	-	-	-
Low Weight	18	43.8	18	45.7	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	50	121.7	48	121.8	-	-	2	*
Prenatal Care Began in 1st Trimester	342	832.1	327	829.9	1	*	14	875.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	409	218	191	407	217	190	-	-	-	2	1	1
Mortality Rate	11.5	11.7	11.4	11.8	12.0	11.6	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	1	2	1	3	3	3	11	10	19	59	297	-
White Male	-	-	1	-	2	2	1	8	7	11	39	146	-
White Female	-	1	1	1	1	1	2	3	3	8	19	150	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	409	1,153.9	407	1,179.0	-	-	7	70.0
Diseases of the Heart	142	400.6	140	405.6	-	-	1	*
Malignant Neoplasms	106	299.0	106	307.1	-	-	-	-
Cerebrovascular Diseases	35	98.7	35	101.4	-	-	-	-
Accidents and Adverse Effects	18	50.8	18	52.1	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	33.9	12	34.8	-	-	-	-
Pneumonia and Influenza	21	59.2	21	60.8	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	1	*
Suicide	6	16.9	6	17.4	-	-	1	*
Atherosclerosis	4	*	4	*	-	-	*	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Huron County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	34,951	Total Live Births:	416	Total Deaths:	417
Rank Among Counties:	44	Teenage Mothers:	37	Infant Deaths:	5
Per Square Mile:	42.1	Low Weight Births:	19	Neonatal Deaths:	4
		First Births:	148	Postneonatal Deaths:	1
				Perinatal Deaths:	10
				Fetal Deaths:	6
MARRIAGE		**DIVORCE**			
Marriages:	263	Divorces:	122		
Marriage Rate:	15.0	Divorce Rate:	7.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	416	11.9	410	11.8	-	-	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	37	88.9	36	87.8	-	-	-	-
Low Weight	19	45.7	18	43.9	-	-	1	*
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	57	137.0	56	136.6	-	-	1	*
Prenatal Care Began in 1st Trimester	343	824.5	339	826.8	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	10	23.7	10	24.0	-	-	-	-
Fetal Deaths	6	14.2	6	14.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	417	222	195	417	222	195	-	-	-	-	-	-
Mortality Rate	11.9	13.0	10.9	12.0	13.0	11.0	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	2	-	5	2	2	8	9	18	58	305	-
White Male	2	2	1	-	5	1	2	5	5	12	37	150	-
White Female	3	1	1	-	-	1	-	3	4	6	21	155	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	417	1,193.1	417	1,199.1	-	-	10	103.0
Diseases of the Heart	159	454.9	159	457.2	-	-	-	-
Malignant Neoplasms	92	263.2	92	264.6	-	-	-	-
Cerebrovascular Diseases	44	125.9	44	126.5	-	-	-	-
Accidents and Adverse Effects	16	45.8	16	46.0	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	40.1	14	40.3	-	-	-	-
Pneumonia and Influenza	9	25.8	9	25.9	-	-	-	-
Diabetes Mellitus	10	28.6	10	28.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	20.0	7	20.1	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	20.0	7	20.1	-	-	2	*
Atherosclerosis	7	20.0	7	20.1	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Ingham County

POPULATION	
As of April 1, 1990:	281,912
Rank Among Counties:	7
Per Square Mile:	503.7

NATALITY	
Total Live Births:	4,297
Teenage Mothers:	558
Low Weight Births:	260
First Births:	1,772

MORTALITY	
Total Deaths:	1,837
Infant Deaths:	30
Neonatal Deaths:	13
Postneonatal Deaths:	17
Perinatal Deaths:	27
Fetal Deaths:	15

MARRIAGE	
Marriages:	2,478
Marriage Rate:	17.6

DIVORCE	
Divorces:	1,203
Divorce Rate:	8.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,297	15.2	3,554	14.6	615	21.7	119	12.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	558	129.9	402	113.1	143	232.5	11	92.4
Low Weight	260	60.5	177	49.8	79	128.5	4	*
Under 1,500 Grams	52	12.1	27	7.6	25	40.7	-	-
< 38 Weeks Gestation	680	158.2	493	138.7	160	260.2	23	193.3
Prenatal Care Began in 1st Trimester	3,385	787.8	2,893	814.0	412	669.9	76	638.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	30	7.0	18	5.1	11	17.9	1	*
Neonatal Deaths	13	3.0	6	1.7	6	9.8	1	*
Postneonatal Deaths	17	4.0	12	3.4	5	*	-	-
Perinatal Deaths	27	6.3	16	4.5	9	14.6	2	*
Fetal Deaths	15	3.5	11	3.1	3	*	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,837	876	961	1,681	797	884	139	71	68	15	7	8
Mortality Rate	6.5	6.5	6.6	6.9	6.8	7.0	4.9	5.3	4.6	1.5	1.4	1.6

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	30	9	8	3	13	18	13	59	84	147	277	1,176	-
White Male	11	6	5	-	5	11	4	29	47	80	145	454	-
White Female	7	1	2	2	3	4	4	18	25	52	103	663	-
Black Male	4	-	1	1	3	3	3	7	6	8	14	21	-
Black Female	7	1	-	-	2	-	1	5	4	5	12	31	-
Other Male	1	-	-	-	-	-	-	-	-	2	1	3	-
Other Female	-	-	-	-	-	-	-	-	2	-	2	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,837	651.6	1,681	689.6	139	491.0	33	40.5
Diseases of the Heart	593	210.3	552	226.5	38	134.2	1	*
Malignant Neoplasms	472	167.4	439	180.1	30	106.0	5	*
Cerebrovascular Diseases	108	38.3	99	40.6	8	28.3	-	-
Accidents and Adverse Effects	73	25.9	59	24.2	13	45.9	18	22.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	82	29.1	81	33.2	1	*	-	-
Pneumonia and Influenza	68	24.1	62	25.4	5	*	-	-
Diabetes Mellitus	46	16.3	40	16.4	6	21.2	-	-
Chronic Liver Disease and Cirrhosis	9	3.2	8	3.3	1	*	-	-
Homicide	11	3.9	7	2.9	4	*	1	*
Suicide	28	9.9	25	10.3	2	*	3	*
Atherosclerosis	15	5.3	13	5.3	-	-	-	-
AIDS	14	5.0	13	5.3	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Ionia County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	57,024	Total Live Births:	813	Total Deaths:	388
Rank Among Counties:	30	Teenage Mothers:	116	Infant Deaths:	7
Per Square Mile:	98.8	Low Weight Births:	56	Neonatal Deaths:	6
		First Births:	315	Postneonatal Deaths:	1
				Perinatal Deaths:	11
				Fetal Deaths:	6
MARRIAGE		**DIVORCE**			
Marriages:	485	Divorces:	248		
Marriage Rate:	17.0	Divorce Rate:	8.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	813	14.3	803	15.0	3	*	6	17.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	116	142.7	112	139.5	1	*	3	*
Low Weight	56	68.9	56	69.7	-	-	-	-
Under 1,500 Grams	10	12.3	10	12.5	-	-	-	-
< 38 Weeks Gestation	147	180.8	145	180.6	1	*	1	*
Prenatal Care Began in 1st Trimester	658	809.3	651	810.7	2	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	8.6	7	8.7	-	-	-	-
Neonatal Deaths	6	7.4	6	7.5	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	11	13.4	11	13.6	-	-	-	-
Fetal Deaths	6	7.3	6	7.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	388	211	177	381	208	173	2	-	2	5	3	2
Mortality Rate	6.8	6.9	6.6	7.1	7.6	6.6	*	-	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	3	1	3	3	5	7	23	32	53	249	-
White Male	5	1	1	1	3	3	4	4	17	22	37	110	-
White Female	2	1	2	-	-	-	1	2	5	10	12	138	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	-	3	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	388	680.4	381	710.0	2	*	9	51.5
Diseases of the Heart	137	240.2	135	251.6	1	*	-	-
Malignant Neoplasms	94	164.8	92	171.4	1	*	2	*
Cerebrovascular Diseases	18	31.6	17	31.7	-	-	-	-
Accidents and Adverse Effects	22	38.6	22	41.0	-	-	6	34.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	24.6	13	24.2	-	-	-	-
Pneumonia and Influenza	9	15.8	9	16.8	-	-	-	-
Diabetes Mellitus	9	15.8	9	16.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Iosco County

POPULATION

As of April 1, 1990:	30,209
Rank Among Counties:	47
Per Square Mile:	55.3

NATALITY

Total Live Births:	474
Teenage Mothers:	53
Low Weight Births:	11
First Births:	171

MORTALITY

Total Deaths:	306
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	288
Marriage Rate:	19.1

DIVORCE

Divorces:	184
Divorce Rate:	12.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	474	15.7	452	15.5	7	11.0	15	29.9

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	53	111.8	49	108.4	2	*	2	*
Low Weight	11	23.2	11	24.3	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	54	113.9	51	112.8	2	*	1	*
Prenatal Care Began in 1st Trimester	372	784.8	356	787.6	5	*	11	733.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	306	160	146	297	155	142	1	1	-	8	4	4
Mortality Rate	10.1	10.6	9.7	10.2	10.7	9.8	*	*	-	16.0	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	-	1	1	9	8	22	61	203	-
White Male	-	-	-	-	-	-	1	7	5	13	35	94	-
White Female	-	-	-	1	-	1	-	1	2	8	24	105	-
Black Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	2	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	306	1,012.9	297	1,021.6	1	*	1	*
Diseases of the Heart	107	354.2	106	364.6	-	-	-	-
Malignant Neoplasms	86	284.7	85	292.4	-	-	-	-
Cerebrovascular Diseases	22	72.8	21	72.2	-	-	-	-
Accidents and Adverse Effects	11	36.4	10	34.4	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	56.3	16	55.0	-	-	-	-
Pneumonia and Influenza	6	19.9	5	*	-	-	-	-
Diabetes Mellitus	7	23.2	6	20.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	1	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	7	23.2	7	24.1	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Iron County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	13,175	Total Live Births:	111	Total Deaths:	222
Rank Among Counties:	69	Teenage Mothers:	11	Infant Deaths:	1
Per Square Mile:	11.3	Low Weight Births:	4	Neonatal Deaths:	-
		First Births:	38	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		**DIVORCE**			
Marriages:	85	Divorces:	64		
Marriage Rate:	12.9	Divorce Rate:	9.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	111	8.4	108	8.3	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	11	99.1	10	92.6	-	-	1	*
Low Weight	4	*	4	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	13	117.1	13	120.4	-	-	-	-
Prenatal Care Began in 1st Trimester	91	819.8	89	824.1	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	-	-	-	-	1	*
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	-	-	-	-	1	*
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	222	104	118	220	104	116	-	-	-	2	-	2
Mortality Rate	16.9	16.5	17.2	16.9	16.6	17.1	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	-	-	2	9	10	34	165	-
White Male	-	-	-	-	1	-	-	1	6	3	19	74	-
White Female	-	-	-	-	-	-	-	1	3	7	14	91	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	1	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	222	1,685.0	220	1,687.5	-	-	1	*
Diseases of the Heart	66	500.9	66	506.3	-	-	-	-
Malignant Neoplasms	60	455.4	59	452.6	-	-	-	-
Cerebrovascular Diseases	16	121.4	16	122.7	-	-	-	-
Accidents and Adverse Effects	8	60.7	8	61.4	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	83.5	11	84.4	-	-	-	-
Pneumonia and Influenza	14	106.3	14	107.4	-	-	-	-
Diabetes Mellitus	7	53.1	7	53.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Isabella County

POPULATION

As of April 1, 1990:	54,624
Rank Among Counties:	32
Per Square Mile:	94.7

NATALITY

Total Live Births:	709
Teenage Mothers:	81
Low Weight Births:	35
First Births:	292

MORTALITY

Total Deaths:	344
Infant Deaths:	8
Neonatal Deaths:	4
Postneonatal Deaths:	4
Perinatal Deaths:	7
Fetal Deaths:	4

MARRIAGE

Marriages:	400
Marriage Rate:	14.6

DIVORCE

Divorces:	180
Divorce Rate:	6.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	709	13.0	681	13.0	3	*	25	16.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	81	114.2	75	110.1	2	*	4	*
Low Weight	35	49.4	34	49.9	-	-	1	*
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	107	150.9	100	146.8	-	-	7	280.0
Prenatal Care Began in 1st Trimester	564	795.5	544	798.8	1	*	19	760.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	11.3	7	10.3	-	-	1	*
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	4	*	3	*	-	-	1	*
Perinatal Deaths	7	9.8	7	10.2	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	344	177	167	333	171	162	1	-	1	10	6	4
Mortality Rate	6.3	6.8	5.9	6.3	6.8	5.9	*	-	*	6.6	8.1	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	2	1	1	2	7	6	6	15	25	54	217	-
White Male	5	1	1	1	2	4	3	4	9	17	28	96	-
White Female	2	1	-	-	-	1	3	2	6	6	25	116	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	2	-	-	-	2	1	1	-
Other Female	1	-	-	-	-	-	-	-	-	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	344	629.8	333	634.5	1	*	6	35.6
Diseases of the Heart	124	227.0	121	230.6	-	-	-	-
Malignant Neoplasms	83	151.9	81	154.3	-	-	-	-
Cerebrovascular Diseases	19	34.8	18	34.3	1	*	-	-
Accidents and Adverse Effects	22	40.3	19	36.2	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	12.8	7	13.3	-	-	-	-
Pneumonia and Influenza	14	25.6	13	24.8	-	-	-	-
Diabetes Mellitus	11	20.1	10	19.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	7	12.8	7	13.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Jackson County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	149,756	Total Live Births:	2,188	Total Deaths:	1,292
Rank Among Counties:	13	Teenage Mothers:	357	Infant Deaths:	20
Per Square Mile:	212.5	Low Weight Births:	141	Neonatal Deaths:	11
		First Births:	871	Postneonatal Deaths:	9
				Perinatal Deaths:	39
				Fetal Deaths:	29
MARRIAGE		**DIVORCE**			
Marriages:	1,284	Divorces:	908		
Marriage Rate:	17.1	Divorce Rate:	12.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,188	14.6	1,962	14.4	210	17.4	14	10.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	357	163.2	296	150.9	57	271.4	4	*
Low Weight	141	64.4	117	59.6	21	100.0	3	*
Under 1,500 Grams	38	17.4	33	16.8	3	*	2	*
< 38 Weeks Gestation	333	152.2	280	142.7	49	233.3	3	*
Prenatal Care Began in 1st Trimester	1,618	739.5	1,486	757.4	121	576.2	10	714.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	20	9.1	17	8.7	3	*	-	-
Neonatal Deaths	11	5.0	10	5.1	1	*	-	-
Postneonatal Deaths	9	4.1	7	3.6	2	*	-	-
Perinatal Deaths	39	17.6	30	15.1	9	41.3	-	-
Fetal Deaths	29	13.1	21	10.6	8	36.7	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,292	688	604	1198	627	571	87	56	31	6	4	2
Mortality Rate	8.6	9.0	8.2	8.8	9.3	8.3	7.2	7.2	7.3	4.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	20	3	1	1	8	10	12	39	48	89	217	844	-
White Male	10	1	1	1	4	7	6	24	28	54	120	371	-
White Female	7	1	-	-	3	2	1	7	12	22	78	438	-
Black Male	1	1	-	-	1	1	4	7	4	8	13	16	-
Black Female	2	-	-	-	-	-	1	1	2	3	4	18	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,292	862.7	1,198	878.5	87	721.5	13	32.1
Diseases of the Heart	439	293.1	420	308.0	16	132.7	-	-
Malignant Neoplasms	302	201.7	280	205.3	21	174.1	2	*
Cerebrovascular Diseases	82	54.8	81	59.4	1	*	-	-
Accidents and Adverse Effects	49	32.7	40	29.3	8	66.3	7	17.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	77	51.4	74	54.3	3	*	-	-
Pneumonia and Influenza	53	35.4	49	35.9	4	*	-	-
Diabetes Mellitus	27	18.0	22	16.1	5	*	-	-
Chronic Liver Disease and Cirrhosis	9	6.0	8	5.9	1	*	-	-
Homicide	5	*	3	*	2	*	-	-
Suicide	25	16.7	23	16.9	2	*	2	*
Atherosclerosis	12	8.0	11	8.1	1	*	-	-
AIDS	9	6.0	3	*	6	49.8	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Kalamazoo County

POPULATION

As of April 1, 1990:	223,411
Rank Among Counties:	8
Per Square Mile:	397.5

NATALITY

Total Live Births:	3,307
Teenage Mothers:	406
Low Weight Births:	240
First Births:	1,357

MORTALITY

Total Deaths:	1,671
Infant Deaths:	33
Neonatal Deaths:	21
Postneonatal Deaths:	12
Perinatal Deaths:	45
Fetal Deaths:	24

MARRIAGE

Marriages:	1,821
Marriage Rate:	16.3

DIVORCE

Divorces:	1,088
Divorce Rate:	9.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,307	14.8	2,727	13.7	535	26.6	43	10.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	406	122.8	264	96.8	139	259.8	3	*
Low Weight	240	72.6	165	60.5	72	134.6	3	*
Under 1,500 Grams	48	14.5	32	11.7	15	28.0	1	*
< 38 Weeks Gestation	519	156.9	391	143.4	119	222.4	9	209.3
Prenatal Care Began in 1st Trimester	2,704	817.7	2,327	853.3	341	637.4	35	814.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	33	10.0	18	6.6	15	28.0	-	-
Neonatal Deaths	21	6.4	14	5.1	7	13.1	-	-
Postneonatal Deaths	12	3.6	4	*	8	15.0	-	-
Perinatal Deaths	45	13.5	36	13.1	9	16.8	-	-
Fetal Deaths	24	7.2	22	8.0	2	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,671	810	861	1,545	737	808	116	70	46	10	3	7
Mortality Rate	7.5	7.5	7.4	7.8	7.7	7.8	5.8	7.3	4.4	2.3	*	3.4

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	33	5	5	4	9	15	16	47	54	128	263	1092	-
White Male	7	2	2	2	8	8	9	20	31	63	146	439	-
White Female	11	1	2	1	1	1	5	17	14	50	98	607	-
Black Male	12	-	-	1	-	1	2	9	6	9	10	20	-
Black Female	3	1	1	-	-	3	-	1	3	4	7	23	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	1	-
Other Female	-	1	-	-	-	1	-	-	-	2	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,671	747.9	1,545	776.1	116	577.5	23	37.2
Diseases of the Heart	511	228.7	482	242.1	27	134.4	1	*
Malignant Neoplasms	401	179.5	371	186.4	25	124.5	3	*
Cerebrovascular Diseases	114	51.0	104	52.2	10	49.8	-	-
Accidents and Adverse Effects	63	28.2	57	28.6	5	*	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	85	38.0	82	41.2	3	*	2	*
Pneumonia and Influenza	85	38.0	83	41.7	2	*	-	-
Diabetes Mellitus	35	15.7	30	15.1	5	*	-	-
Chronic Liver Disease and Cirrhosis	19	8.5	16	8.0	3	*	-	-
Homicide	4	*	3	*	1	*	-	-
Suicide	19	8.5	19	9.5	-	-	3	*
Atherosclerosis	15	6.7	13	6.5	2	*	-	-
AIDS	11	4.9	9	4.5	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Kalkaska County

POPULATION

As of April 1, 1990:	13,497
Rank Among Counties:	68
Per Square Mile:	24.0

NATALITY

Total Live Births:	199
Teenage Mothers:	35
Low Weight Births:	5
First Births:	81

MORTALITY

Total Deaths:	104
Infant Deaths:	1
Neonatal Deaths:	-
Postneonatal Deaths:	1
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	117
Marriage Rate:	17.3

DIVORCE

Divorces:	63
Divorce Rate:	9.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	199	14.7	196	14.7	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	175.9	35	178.6	-	-	-	-
Low Weight	5	*	5	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	26	130.7	25	127.6	-	-	1	*
Prenatal Care Began in 1st Trimester	126	633.2	125	637.8	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	104	58	46	104	58	46	-	-	-	-	-	-
Mortality Rate	7.7	8.6	6.8	7.8	8.7	6.9	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	2	1	-	-	6	3	5	16	69	-
White Male	1	-	1	2	1	-	-	4	3	2	9	35	-
White Female	-	-	-	-	-	-	-	2	-	3	7	34	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	104	770.5	104	779.2	-	-	4	*
Diseases of the Heart	40	296.4	40	299.7	-	-	-	-
Malignant Neoplasms	22	163.0	22	164.8	-	-	-	-
Cerebrovascular Diseases	7	51.9	7	52.4	-	-	-	-
Accidents and Adverse Effects	4	*	4	*	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*	4	*	-	-	-	-
Pneumonia and Influenza	-	-	-	-	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	1	*
Atherosclerosis	7	51.9	7	52.4	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Kent County

POPULATION

As of April 1, 1990:	500,631
Rank Among Counties:	4
Per Square Mile:	580.9

NATALITY

Total Live Births:	9,081
Teenage Mothers:	1055
Low Weight Births:	577
First Births:	3,480

MORTALITY

Total Deaths:	3,496
Infant Deaths:	74
Neonatal Deaths:	45
Postneonatal Deaths:	29
Perinatal Deaths:	71
Fetal Deaths:	32

MARRIAGE

Marriages:	4,703
Marriage Rate:	18.8

DIVORCE

Divorces:	2,357
Divorce Rate:	9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,081	18.1	7,879	17.5	1,078	26.1	121	14.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,055	116.2	702	89.1	336	311.7	15	124.0
Low Weight	577	63.5	417	52.9	153	141.9	6	49.6
Under 1,500 Grams	111	12.2	72	9.1	37	34.3	2	*
< 38 Weeks Gestation	1,415	155.8	1,115	141.5	275	255.1	24	198.3
Prenatal Care Began in 1st Trimester	7,390	813.8	6,659	845.2	635	589.1	93	768.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	74	8.1	53	6.7	19	17.6	2	*
Neonatal Deaths	45	5.0	30	3.8	14	13.0	1	*
Postneonatal Deaths	29	3.2	23	2.9	5	*	1	*
Perinatal Deaths	71	7.8	50	6.3	18	16.6	1	*
Fetal Deaths	32	3.5	25	3.2	5	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	3,496	1,704	1,792	3,215	1,548	1,667	256	141	115	24	14	10
Mortality Rate	7.0	7.0	6.9	7.1	7.1	7.2	6.2	7.1	5.3	2.8	3.3	2.3

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	74	13	6	4	22	25	28	95	161	232	538	2,298	-
White Male	33	6	2	3	12	19	15	53	84	107	287	927	-
White Female	20	-	1	1	7	4	10	28	49	88	194	1,267	-
Black Male	10	4	3	-	-	1	2	9	20	18	25	49	-
Black Female	9	3	-	-	3	-	1	6	7	12	25	49	-
Other Male	1	-	-	-	-	1	-	1	1	6	3	1	-
Other Female	1	-	-	-	-	-	-	-	-	1	4	4	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,496	698.3	3,215	713.5	256	619.0	45	30.5
Diseases of the Heart	1,094	218.5	1,025	227.5	60	145.1	1	*
Malignant Neoplasms	846	169.0	778	172.6	62	149.9	2	*
Cerebrovascular Diseases	233	46.5	222	49.3	11	26.6	-	-
Accidents and Adverse Effects	137	27.4	120	26.6	17	41.1	23	15.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	147	29.4	139	30.8	8	19.3	-	-
Pneumonia and Influenza	165	33.0	159	35.3	6	14.5	-	-
Diabetes Mellitus	79	15.8	66	14.6	11	26.6	-	-
Chronic Liver Disease and Cirrhosis	26	5.2	23	5.1	2	*	-	-
Homicide	21	4.2	10	2.2	10	24.2	3	*
Suicide	49	9.8	47	10.4	2	*	3	*
Atherosclerosis	30	6.0	26	5.8	4	*	-	-
AIDS	33	6.6	30	6.7	3	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Keweenaw County

POPULATION
As of April 1, 1990: 1,701
Rank Among Counties: 83
Per Square Mile: 3.1

NATALITY
Total Live Births: 20
Teenage Mothers: 2
Low Weight Births: 1
First Births: 6

MORTALITY
Total Deaths: 30
Infant Deaths: -
Neonatal Deaths: -
Postneonatal Deaths: -
Perinatal Deaths: -
Fetal Deaths: -

MARRIAGE
Marriages: 17
Marriage Rate: 20.0

DIVORCE
Divorces: 8
Divorce Rate: 9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	20	11.8	20	11.8	-	-	-	-

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	2	*	2	*	-	-	-	-
Low Weight	1	*	1	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	3	*	3	*	-	-	-	-
Prenatal Care Began in 1st Trimester	12	600.0	12	600.0	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	30	14	16	30	14	16	-	-	-	-	-	-
Mortality Rate	17.6	16.7	18.5	17.8	16.8	18.6	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	-	-	-	5	4	21	-
White Male	-	-	-	-	-	-	-	-	-	1	3	10	-
White Female	-	-	-	-	-	-	-	-	-	4	1	11	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	30	1,763.7	30	1,775.1	-	-	-	-
Diseases of the Heart	15	881.8	15	887.6	-	-	-	-
Malignant Neoplasms	5	*	5	*	-	-	-	-
Cerebrovascular Diseases	4	*	4	*	-	-	-	-
Accidents and Adverse Effects	-	-	-	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	1	*	1	*	-	-	-	-
Pneumonia and Influenza	2	*	2	*	-	-	-	-
Diabetes Mellitus	-	-	-	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Lake County

POPULATION
As of April 1, 1990: 8,583
Rank Among Counties: 78
Per Square Mile: 15.1

NATALITY
Total Live Births: 107
Teenage Mothers: 22
Low Weight Births: 12
First Births: 43

MORTALITY
Total Deaths: 129
Infant Deaths: 2
Neonatal Deaths: 2
Postneonatal Deaths: -
Perinatal Deaths: 3
Fetal Deaths: 1

MARRIAGE
Marriages: 81
Marriage Rate: 18.9

DIVORCE
Divorces: 42
Divorce Rate: 9.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	107	12.5	86	11.7	18	15.7	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	22	205.6	16	186.0	5	*	1	*
Low Weight	12	112.1	10	116.3	2	*	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	25	233.6	21	244.2	3	*	-	-
Prenatal Care Began in 1st Trimester	62	579.4	54	627.9	6	333.3	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	*	2	*	-	-	1	*
Fetal Deaths	1	*	-	-	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	129	72	57	104	59	45	21	9	12	3	3	-
Mortality Rate	15.0	17.2	13.0	14.2	16.2	12.1	18.3	17.5	19.0	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	-	2	3	8	5	31	76	-
White Male	1	-	-	-	-	-	-	2	6	3	18	29	-
White Female	1	-	-	-	-	-	1	1	1	2	9	30	-
Black Male	-	2	-	-	-	-	1	-	1	-	1	4	-
Black Female	-	-	-	-	-	-	-	-	-	-	2	10	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	129	1,503.0	104	1,415.5	21	1,832.5	2	*
Diseases of the Heart	48	559.2	40	544.4	8	698.1	-	-
Malignant Neoplasms	44	512.6	38	517.2	4	*	-	-
Cerebrovascular Diseases	7	81.6	5	*	2	*	-	-
Accidents and Adverse Effects	2	*	2	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	81.6	6	81.7	-	-	-	-
Pneumonia and Influenza	1	*	1	*	-	-	-	-
Diabetes Mellitus	2	*	1	*	1	*	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	3	*	-	-	3	*	2	*
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Lapeer County

POPULATION

As of April 1, 1990:	74,768
Rank Among Counties:	23
Per Square Mile:	113.6

NATALITY

Total Live Births:	1,016
Teenage Mothers:	91
Low Weight Births:	60
First Births:	387

MORTALITY

Total Deaths:	504
Infant Deaths:	11
Neonatal Deaths:	6
Postneonatal Deaths:	5
Perinatal Deaths:	12
Fetal Deaths:	6

MARRIAGE

Marriages:	641
Marriage Rate:	17.1

DIVORCE

Divorces:	381
Divorce Rate:	10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,016	13.6	1,006	13.7	1	*	8	13.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	91	89.6	91	90.5	-	-	-	-
Low Weight	60	59.1	60	59.6	-	-	-	-
Under 1,500 Grams	11	10.8	11	10.9	-	-	-	-
< 38 Weeks Gestation	162	159.4	161	160.0	-	-	1	*
Prenatal Care Began in 1st Trimester	804	791.3	799	794.2	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	11	10.8	11	10.9	-	-	-	-
Neonatal Deaths	6	5.9	6	6.0	-	-	-	-
Postneonatal Deaths	5	*	5	*	-	-	-	-
Perinatal Deaths	12	11.7	12	11.9	-	-	-	-
Fetal Deaths	6	5.9	6	5.9	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	504	284	220	497	279	218	1	1	-	6	4	2
Mortality Rate	6.7	7.6	5.9	6.7	7.6	5.9	*	*	-	9.8	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	11	1	-	2	3	5	8	20	25	34	103	292	-
White Male	6	1	-	1	1	3	7	12	15	20	57	156	-
White Female	5	-	-	1	2	2	1	8	8	14	43	134	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	2	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	504	674.1	497	674.6	1	*	6	25.6
Diseases of the Heart	175	234.1	170	230.8	1	*	-	-
Malignant Neoplasms	127	169.9	126	171.0	-	-	-	-
Cerebrovascular Diseases	39	52.2	39	52.9	-	-	-	-
Accidents and Adverse Effects	28	37.4	28	38.0	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	28.1	21	28.5	-	-	1	*
Pneumonia and Influenza	20	26.7	20	27.1	-	-	-	-
Diabetes Mellitus	14	18.7	13	17.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	8.0	6	8.1	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Leelanau County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	16,527	Total Live Births:	216	Total Deaths:	132
Rank Among Counties:	65	Teenage Mothers:	18	Infant Deaths:	2
Per Square Mile:	48.4	Low Weight Births:	9	Neonatal Deaths:	1
		First Births:	77	Postneonatal Deaths:	1
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	95	Divorces:	57		
Marriage Rate:	11.5	Divorce Rate:	6.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	216	13.1	202	12.6	1	*	13	25.9

	Total		White		Black		Other	
	Number	Ratio	Number.	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	18	83.3	13	64.4	1	*	4	*
Low Weight	9	41.7	9	44.6	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	28	129.6	27	133.7	-	-	1	*
Prenatal Care Began in 1st Trimester	164	759.3	160	792.1	1	*	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	1	*	-	-	1	*
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	-	-	-	-	1	*
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	132	71	61	129	68	61	-	-	-	3	3	-
Mortality Rate	8.0	8.6	7.4	8.1	8.5	7.6	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	1	-	-	1	-	1	-	8	22	97	-
White Male	-	-	1	-	-	1	-	-	-	3	13	50	-
White Female	1	-	-	-	-	-	-	1	-	5	8	46	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	132	798.7	129	805.8	-	-	1	*
Diseases of the Heart	44	266.2	43	268.6	-	-	-	-
Malignant Neoplasms	28	169.4	28	174.9	-	-	-	-
Cerebrovascular Diseases	6	36.3	6	37.5	-	-	-	-
Accidents and Adverse Effects	6	36.3	6	37.5	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	60.5	10	62.5	-	-	-	-
Pneumonia and Influenza	9	54.5	8	50.0	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Lenawee County

POPULATION	
As of April 1, 1990:	91,478
Rank Among Counties:	20
Per Square Mile:	121.6

NATALITY	
Total Live Births:	1,247
Teenage Mothers:	178
Low Weight Births:	73
First Births:	482

MORTALITY	
Total Deaths:	783
Infant Deaths:	6
Neonatal Deaths:	5
Postneonatal Deaths:	1
Perinatal Deaths:	12
Fetal Deaths:	7

MARRIAGE	
Marriages:	631
Marriage Rate:	13.8

DIVORCE	
Divorces:	466
Divorce Rate:	10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,247	13.6	1,219	13.7	15	10.2	9	10.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	178	142.7	166	136.2	10	666.7	1	*
Low Weight	73	58.5	69	56.6	2	*	2	*
Under 1,500 Grams	11	8.8	10	8.2	1	*	-	-
< 38 Weeks Gestation	174	139.5	169	138.6	3	*	2	*
Prenatal Care Began in 1st Trimester	1,017	815.6	1,000	820.3	11	733.3	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	4.8	6	4.9	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	12	9.6	12	9.8	-	-	-	-
Fetal Deaths	7	5.6	7	5.7	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	783	395	388	778	390	388	3	3	-	2	2	-
Mortality Rate	8.6	8.8	8.4	8.7	8.9	8.5	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	4	1	5	9	5	2	14	25	50	135	527	-
White Male	4	3	-	3	3	4	2	9	12	29	75	246	-
White Female	2	1	1	2	6	1	-	5	12	21	60	277	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	3	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	783	856.0	778	872.6	3	*	19	68.9
Diseases of the Heart	272	297.3	270	302.8	2	*	1	*
Malignant Neoplasms	197	215.4	196	219.8	-	-	3	*
Cerebrovascular Diseases	62	67.8	62	69.5	-	-	-	-
Accidents and Adverse Effects	34	37.2	33	37.0	-	-	11	39.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	42	45.9	42	47.1	-	-	-	-
Pneumonia and Influenza	15	16.4	15	16.8	-	-	-	-
Diabetes Mellitus	21	23.0	21	23.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	7.7	7	7.9	-	-	1	*
Homicide	1	*	1	*	-	-	-	-
Suicide	7	7.7	7	7.9	-	-	-	-
Atherosclerosis	12	13.1	12	13.5	-	-	-	-
AIDS	6	6.6	6	6.7	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: *Office of the State Registrar and Division for Health Statistics, MDPH*

Profile of Livingston County

POPULATION	
As of April 1, 1990:	115,645
Rank Among Counties:	17
Per Square Mile:	201.4

NATALITY	
Total Live Births:	1,596
Teenage Mothers:	81
Low Weight Births:	84
First Births:	630

MORTALITY	
Total Deaths:	726
Infant Deaths:	7
Neonatal Deaths:	4
Postneonatal Deaths:	3
Perinatal Deaths:	10
Fetal Deaths:	7

MARRIAGE	
Marriages:	934
Marriage Rate:	16.2

DIVORCE	
Divorces:	602
Divorce Rate:	10.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,596	13.8	1,579	13.9	1	*	9	7.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	81	50.8	79	50.0	-	-	1	*
Low Weight	84	52.6	84	53.2	-	-	-	-
Under 1,500 Grams	15	9.4	15	9.5	-	-	-	-
< 38 Weeks Gestation	216	135.3	215	136.2	-	-	-	-
Prenatal Care Began in 1st Trimester	1,344	842.1	1,337	846.7	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	4.4	6	3.8	1	*	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	3	*	2	*	1	*	-	-
Perinatal Deaths	10	6.2	10	6.3	-	-	-	-
Fetal Deaths	7	4.4	7	4.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	726	372	354	716	367	349	4	2	2	6	3	3
Mortality Rate	6.3	6.4	6.2	6.3	6.4	6.2	*	*	*	5.0	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	2	-	6	9	8	20	29	62	128	453	-
White Male	5	1	1	-	3	8	5	12	23	44	71	194	-
White Female	1	1	1	-	3	1	3	8	5	17	53	256	-
Black Male	1	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	726	627.8	716	629.3	4	*	10	28.7
Diseases of the Heart	248	214.4	243	213.6	2	*	1	*
Malignant Neoplasms	206	178.1	202	177.5	2	*	2	*
Cerebrovascular Diseases	40	34.6	40	35.2	-	-	-	-
Accidents and Adverse Effects	30	25.9	30	26.4	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33	28.5	33	29.0	-	-	-	-
Pneumonia and Influenza	15	13.0	15	13.2	-	-	-	-
Diabetes Mellitus	13	11.2	13	11.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	13	11.2	13	11.4	-	-	-	-
Homicide	2	*	2	*	-	-	1	*
Suicide	19	16.4	19	16.7	-	-	1	*
Atherosclerosis	7	6.1	7	6.2	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH.

Profile of Luce County

POPULATION

As of April 1, 1990:	5,763
Rank Among Counties:	82
Per Square Mile:	6.4

NATALITY

Total Live Births:	74
Teenage Mothers:	9
Low Weight Births:	1
First Births:	21

MORTALITY

Total Deaths:	73
Infant Deaths:	2
Neonatal Deaths:	2
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	-

MARRIAGE

Marriages:	39
Marriage Rate:	13.5

DIVORCE

Divorces:	36
Divorce Rate:	12.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	74	12.8	68	12.5	-	-	6	17.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	121.6	8	117.6	-	-	1	*
Low Weight	1	*	1	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	9	121.6	9	132.4	-	-	-	-
Prenatal Care Began in 1st Trimester	54	729.7	49	720.6	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	73	44	29	69	42	27	-	-	-	4	2	2
Mortality Rate	12.7	15.6	9.9	12.7	15.9	9.7	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	-	3	1	2	3	1	15	45	-
White Male	1	-	-	1	-	2	1	2	2	-	9	24	-
White Female	1	-	-	-	-	1	-	-	1	-	5	19	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	73	1,266.7	69	1,272.1	-	-	1	*
Diseases of the Heart	16	277.6	15	276.5	-	-	-	-
Malignant Neoplasms	17	295.0	16	295.0	-	-	-	-
Cerebrovascular Diseases	10	173.5	10	184.4	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	*	3	*	-	-	-	-
Pneumonia and Influenza	6	104.1	6	110.6	-	-	-	-
Diabetes Mellitus	1	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Mackinac County

POPULATION

As of April 1, 1990:	10,674
Rank Among Counties:	73
Per Square Mile:	10.4

NATALITY

Total Live Births:	135
Teenage Mothers:	18
Low Weight Births:	4
First Births:	66

MORTALITY

Total Deaths:	120
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	-
Fetal Deaths:	-

MARRIAGE

Marriages:	204
Marriage Rate:	38.2

DIVORCE

Divorces:	39
Divorce Rate:	7.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	135	12.6	117	13.0	-	-	18	10.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	18	133.3	14	119.7	-	-	4	*
Low Weight	4	*	4	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	19	140.7	17	145.3	-	-	2	*
Prenatal Care Began in 1st Trimester	111	822.2	98	837.6	-	-	13	722.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	120	51	69	106	43	63	-	-	-	14	8	6
Mortality Rate	11.2	9.7	12.8	11.8	9.7	13.8	-	-	-	8.2	9.3	7.1

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	1	-	5	4	10	20	80	-
White Male	-	-	-	-	-	-	-	3	3	2	8	27	-
White Female	-	-	-	-	-	1	-	1	-	5	8	48	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	3	2	2	-
Other Female	-	-	-	-	-	-	-	-	1	-	2	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	120	1,124.2	106	1,182.1	-	-	-	-
Diseases of the Heart	38	356.0	33	368.0	-	-	-	-
Malignant Neoplasms	27	253.0	26	290.0	-	-	-	-
Cerebrovascular Diseases	6	56.2	6	66.9	-	-	-	-
Accidents and Adverse Effects	4	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	56.2	4	*	-	-	-	-
Pneumonia and Influenza	2	*	2	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Macomb County

POPULATION
As of April 1, 1990: 717,400
Rank Among Counties: 3
Per Square Mile: 1,487.1

NATALITY
Total Live Births: 9,828
Teenage Mothers: 618
Low Weight Births: 583
First Births: 4,124

MORTALITY
Total Deaths: 5,873
Infant Deaths: 53
Neonatal Deaths: 39
Postneonatal Deaths: 14
Perinatal Deaths: 80
Fetal Deaths: 43

MARRIAGE
Marriages: 6,217
Marriage Rate: 17.3

DIVORCE
Divorces: 2,913
Divorce Rate: 8.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,828	13.7	9,398	13.5	224	21.4	142	12.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	618	62.9	555	59.1	49	218.8	10	70.4
Low Weight	583	59.3	549	58.4	24	107.1	7	49.3
Under 1,500 Grams	112	11.4	103	11.0	8	35.7	-	-
< 38 Weeks Gestation	1,509	153.5	1,421	151.2	56	250.0	23	162.0
Prenatal Care Began in 1st Trimester	8,588	873.8	8,287	881.8	145	647.3	106	746.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	53	5.4	50	5.3	3	*	-	-
Neonatal Deaths	39	4.0	36	3.8	3	*	-	-
Postneonatal Deaths	14	1.4	14	1.5	-	-	-	-
Perinatal Deaths	80	8.1	72	7.6	3	*	3	*
Fetal Deaths	43	4.4	38	4.0	-	-	3	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	5,873	2,946	2,927	5,752	2,876	2,876	74	42	32	42	24	18
Mortality Rate	8.2	8.5	7.9	8.3	8.5	8.0	7.1	8.1	6.1	3.6	4.3	2.9

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	53	12	13	9	22	36	51	160	220	457	1,079	3,761	-
White Male	30	6	9	6	17	25	40	102	132	259	625	1,625	-
White Female	20	5	2	2	4	11	8	52	80	177	426	2,089	-
Black Male	1	-	1	-	1	-	3	1	2	5	10	18	-
Black Female	2	-	1	-	-	-	-	2	3	8	6	10	-
Other Male	-	1	-	1	-	-	-	2	3	4	7	6	-
Other Female	-	-	-	-	-	-	-	1	-	3	4	10	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	5,873	818.7	5,752	827.4	74	708.1	56	30.8
Diseases of the Heart	2,028	282.7	1,994	286.8	22	210.5	-	-
Malignant Neoplasms	1,572	219.1	1,536	221.0	21	201.0	13	7.1
Cerebrovascular Diseases	421	58.7	412	59.3	6	57.4	-	-
Accidents and Adverse Effects	163	22.7	157	22.6	4	*	17	9.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	208	29.0	206	29.6	1	*	-	-
Pneumonia and Influenza	203	28.3	201	28.9	1	*	1	*
Diabetes Mellitus	157	21.9	151	21.7	2	*	-	-
Chronic Liver Disease and Cirrhosis	76	10.6	75	10.8	1	*	-	-
Homicide	32	4.5	28	4.0	3	*	5	*
Suicide	78	10.9	77	11.1	-	-	6	3.3
Atherosclerosis	103	14.4	103	14.8	-	-	-	-
AIDS	29	4.0	27	3.9	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Manistee County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	21,265	Total Live Births:	243	Total Deaths:	280
Rank Among Counties:	58	Teenage Mothers:	29	Infant Deaths:	5
Per Square Mile:	39.2	Low Weight Births:	18	Neonatal Deaths:	4
		First Births:	96	Postneonatal Deaths:	1
				Perinatal Deaths:	7
				Fetal Deaths:	3
MARRIAGE		**DIVORCE**			
Marriages:	176	Divorces:	96		
Marriage Rate:	16.6	Divorce Rate:	9.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	243	11.4	236	11.3	-	-	7	28.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	29	119.3	27	114.4	-	-	2	*
Low Weight	18	74.1	17	72.0	-	-	1	*
Under 1,500 Grams	6	24.7	6	25.4	-	-	-	-
< 38 Weeks Gestation	36	148.1	32	135.6	-	-	4	*
Prenatal Care Began in 1st Trimester	175	720.2	170	720.3	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	7	28.5	6	25.2	-	-	1	*
Fetal Deaths	3	*	2	*	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	280	150	130	276	147	129	-	-	-	4	3	1
Mortality Rate	13.2	14.6	11.9	13.2	14.5	11.9	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	-	1	-	-	3	1	3	11	18	52	186	-
White Male	2	-	1	-	-	3	-	2	6	11	32	90	-
White Female	3	-	-	-	-	-	1	1	3	6	19	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	280	1,316.7	276	1,316.5	-	-	1	*
Diseases of the Heart	105	493.8	105	500.8	-	-	-	-
Malignant Neoplasms	67	315.1	66	314.8	-	-	1	*
Cerebrovascular Diseases	17	79.9	17	81.1	-	-	-	-
Accidents and Adverse Effects	6	28.2	6	28.6	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	47.0	10	47.7	-	-	-	-
Pneumonia and Influenza	8	37.6	8	38.2	-	-	-	-
Diabetes Mellitus	9	42.3	8	38.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	3	*	-	-	-	-
Atherosclerosis	9	42.3	9	42.9	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Marquette County

POPULATION

As of April 1, 1990:	70,887
Rank Among Counties:	24
Per Square Mile:	38.9

NATALITY

Total Live Births:	921
Teenage Mothers:	89
Low Weight Births:	47
First Births:	388

MORTALITY

Total Deaths:	529
Infant Deaths:	12
Neonatal Deaths:	11
Postneonatal Deaths:	1
Perinatal Deaths:	12
Fetal Deaths:	3

MARRIAGE

Marriages:	655
Marriage Rate:	18.5

DIVORCE

Divorces:	324
Divorce Rate:	9.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	921	13.0	860	12.6	15	12.7	44	29.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	89	96.6	81	94.2	3	*	5	*
Low Weight	47	51.0	41	47.7	1	*	5	*
Under 1,500 Grams	12	13.0	10	11.6	1	*	1	*
< 38 Weeks Gestation	127	137.9	115	133.7	4	*	8	181.8
Prenatal Care Began in 1st Trimester	807	876.2	759	882.6	9	600.0	38	863.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	12	13.0	12	14.0	-	-	-	-
Neonatal Deaths	11	11.9	11	12.8	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	12	13.0	11	12.8	-	-	1	*
Fetal Deaths	3	*	2	*	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	529	270	259	521	265	256	1	1	-	7	4	3
Mortality Rate	7.5	7.5	7.4	7.6	7.7	7.6	*	*	-	4.7	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	12	1	-	2	1	5	3	3	17	36	85	364	-
White Male	7	1	-	-	1	5	2	2	9	22	48	168	-
White Female	5	-	-	2	-	-	1	1	5	13	36	193	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	2	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	529	746.3	521	763.8	1	*	4	*
Diseases of the Heart	174	245.5	170	249.2	-	-	-	-
Malignant Neoplasms	120	169.3	120	175.9	-	-	-	-
Cerebrovascular Diseases	38	53.6	37	54.2	-	-	-	-
Accidents and Adverse Effects	17	24.0	17	24.9	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	26.8	19	27.9	-	-	-	-
Pneumonia and Influenza	20	28.2	20	29.3	-	-	1	*
Diabetes Mellitus	15	21.2	15	22.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	9.9	5	*	1	*	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	9	12.7	9	13.2	-	-	1	*
Atherosclerosis	6	8.5	6	8.8	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Mason County

POPULATION	
As of April 1, 1990:	25,537
Rank Among Counties:	50
Per Square Mile:	51.8

NATALITY	
Total Live Births:	322
Teenage Mothers:	42
Low Weight Births:	19
First Births:	118

MORTALITY	
Total Deaths:	250
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	1

MARRIAGE	
Marriages:	227
Marriage Rate:	17.8

DIVORCE	
Divorces:	146
Divorce Rate:	11.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	322	12.6	301	12.0	1	*	19	68.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	130.4	39	129.6	-	-	2	*
Low Weight	19	59.0	19	63.1	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	44	136.6	42	139.5	-	-	2	*
Prenatal Care Began in 1st Trimester	252	782.6	237	787.4	1	*	14	736.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	250	124	126	249	123	126	-	-	-	1	1	-
Mortality Rate	9.8	10.0	9.6	9.9	10.1	9.7	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	1	2	3	3	4	14	11	39	171	-
White Male	-	-	1	1	1	3	-	3	8	5	27	74	-
White Female	1	-	-	-	1	-	3	1	6	6	12	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	250	979.0	249	991.8	-	-	4	*
Diseases of the Heart	83	325.0	82	326.6	-	-	-	-
Malignant Neoplasms	61	238.9	61	243.0	-	-	-	-
Cerebrovascular Diseases	22	86.1	22	87.6	-	-	-	-
Accidents and Adverse Effects	15	58.7	15	59.7	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	8	31.3	8	31.9	-	-	-	-
Diabetes Mellitus	7	27.4	7	27.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	7	27.4	7	27.9	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Mecosta County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	37,308	Total Live Births:	412	Total Deaths:	268
Rank Among Counties:	42	Teenage Mothers:	75	Infant Deaths:	4
Per Square Mile:	66.6	Low Weight Births:	22	Neonatal Deaths:	2
		First Births:	168	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4

MARRIAGE		DIVORCE	
Marriages:	295	Divorces:	147
Marriage Rate:	15.8	Divorce Rate:	7.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	412	11.0	385	10.7	21	21.3	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	75	182.0	63	163.6	8	381.0	3	*
Low Weight	22	53.4	18	46.8	3	*	1	*
Under 1,500 Grams	5	*	4	*	1	*	-	-
< 38 Weeks Gestation	48	116.5	42	109.1	4	*	2	*
Prenatal Care Began in 1st Trimester	286	694.2	272	706.5	11	523.8	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	6	14.4	6	15.4	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	268	144	124	264	141	123	2	2	-	2	1	1
Mortality Rate	7.2	7.5	6.9	7.4	7.8	7.1	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	2	2	1	1	1	4	8	18	57	169	-
White Male	3	1	1	-	1	1	1	2	7	16	26	82	-
White Female	1	-	1	2	-	-	-	2	1	2	28	86	-
Black Male	-	-	-	-	-	-	-	-	-	-	2	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	268	718.3	264	735.9	2	*	6	51.9
Diseases of the Heart	86	230.5	85	236.9	-	-	-	-
Malignant Neoplasms	76	203.7	76	211.9	-	-	-	-
Cerebrovascular Diseases	14	37.5	14	39.0	-	-	-	-
Accidents and Adverse Effects	15	40.2	14	39.0	-	-	6	51.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	34.8	13	36.2	-	-	-	-
Pneumonia and Influenza	14	37.5	14	39.0	-	-	-	-
Diabetes Mellitus	7	18.8	7	19.5	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	3	*	1	*	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Menominee County

POPULATION

As of April 1, 1990:	24,920
Rank Among Counties:	53
Per Square Mile:	23.8

NATALITY

Total Live Births:	268
Teenage Mothers:	30
Low Weight Births:	12
First Births:	96

MORTALITY

Total Deaths:	255
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	4
Fetal Deaths:	3

MARRIAGE

Marriages:	223
Marriage Rate:	17.9

DIVORCE

Divorces:	90
Divorce Rate:	7.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	268	10.8	255	10.4	3	*	9	20.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	30	111.9	28	109.8	-	-	2	*
Low Weight	12	44.8	11	43.1	1	*	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	30	111.9	29	113.7	-	-	1	*
Prenatal Care Began in 1st Trimester	200	746.3	195	764.7	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	255	148	107	249	144	105	-	-	-	6	4	2
Mortality Rate	10.2	12.0	8.5	10.2	11.9	8.5	-	-	-	13.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	2	-	4	2	2	2	12	11	40	178	-
White Male	2	-	1	-	4	2	2	1	8	9	23	92	-
White Female	-	-	1	-	-	-	-	1	1	2	14	86	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	3	-	-
Other Female	-	-	-	-	-	-	-	-	2	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	255	1,023.3	249	1,017.5	-	-	6	87.6
Diseases of the Heart	89	357.1	89	363.7	-	-	1	*
Malignant Neoplasms	60	240.8	58	237.0	-	-	-	-
Cerebrovascular Diseases	18	72.2	18	73.6	-	-	-	-
Accidents and Adverse Effects	9	36.1	9	36.8	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	40.1	10	40.9	-	-	-	-
Pneumonia and Influenza	7	28.1	6	24.5	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	9	36.1	6	24.5	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	2	*
Atherosclerosis	8	32.1	8	32.7	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Midland County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	75,651	Total Live Births:	1,137	Total Deaths:	469
Rank Among Counties:	22	Teenage Mothers:	96	Infant Deaths:	7
Per Square Mile:	144.1	Low Weight Births:	62	Neonatal Deaths:	6
		First Births:	471	Postneonatal Deaths:	1
				Perinatal Deaths:	13
				Fetal Deaths:	8

MARRIAGE		DIVORCE	
Marriages:	696	Divorces:	375
Marriage Rate:	18.4	Divorce Rate:	9.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,137	15.0	1,117	15.1	10	13.7	10	8.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	96	84.4	95	85.0	1	*	-	-
Low Weight	62	54.5	60	53.7	1	*	1	*
Under 1,500 Grams	6	5.3	5	*	-	-	1	*
< 38 Weeks Gestation	156	137.2	155	138.8	1	*	-	-
Prenatal Care Began in 1st Trimester	1,032	907.7	1,016	909.6	6	600.0	10	1,000.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	6.2	6	5.4	-	-	1	*
Neonatal Deaths	6	5.3	5	*	-	-	1	*
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	13	11.4	11	9.8	1	*	1	*
Fetal Deaths	8	7.0	7	6.2	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	469	246	223	463	240	223	3	3	-	3	3	-
Mortality Rate	6.2	6.6	5.8	6.3	6.6	6.0	*	*	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	4	1	2	2	7	12	30	41	69	292	-
White Male	2	1	3	-	1	1	6	11	19	27	40	129	-
White Female	4	1	1	1	1	1	1	1	10	14	28	160	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	469	620.0	463	627.6	3	*	9	41.0
Diseases of the Heart	146	193.0	144	195.2	2	*	-	-
Malignant Neoplasms	106	140.1	104	141.0	-	-	-	-
Cerebrovascular Diseases	29	38.3	29	39.3	-	-	-	-
Accidents and Adverse Effects	17	22.5	17	23.0	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	22	29.1	22	29.8	-	-	-	-
Pneumonia and Influenza	18	23.8	18	24.4	-	-	-	-
Diabetes Mellitus	9	11.9	9	12.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	13	17.2	13	17.6	-	-	-	-
Atherosclerosis	8	10.6	8	10.8	-	-	-	-
AIDS	3	*	3	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Missaukee County

POPULATION

As of April 1, 1990:	12,147
Rank Among Counties:	72
Per Square Mile:	21.5

NATALITY

Total Live Births:	190
Teenage Mothers:	24
Low Weight Births:	12
First Births:	63

MORTALITY

Total Deaths:	121
Infant Deaths:	2
Neonatal Deaths:	1
Postneonatal Deaths:	1
Perinatal Deaths:	1
Fetal Deaths:	-

MARRIAGE

Marriages:	88
Marriage Rate:	14.5

DIVORCE

Divorces:	41
Divorce Rate:	6.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	190	15.6	187	15.5	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	24	126.3	23	123.0	-	-	1	*
Low Weight	12	63.2	11	58.8	-	-	1	*
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	15	78.9	14	74.9	-	-	1	*
Prenatal Care Began in 1st Trimester	150	789.5	147	786.1	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	121	67	54	120	67	53	-	-	-	1	-	1
Mortality Rate	10.0	11.2	8.8	10.0	11.3	8.7	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	4	2	-	3	6	10	16	78	-
White Male	1	-	-	-	2	2	-	-	3	3	13	43	-
White Female	1	-	-	-	1	-	-	3	3	7	3	35	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	1	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	121	996.1	120	996.8	-	-	4	*
Diseases of the Heart	44	362.2	44	365.5	-	-	-	-
Malignant Neoplasms	24	197.6	24	199.4	-	-	-	-
Cerebrovascular Diseases	9	74.1	9	74.8	-	-	-	-
Accidents and Adverse Effects	10	82.3	10	83.1	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	90.6	11	91.4	-	-	-	-
Pneumonia and Influenza	4	*	4	*	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Monroe County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	133,600	Total Live Births:	1,845	Total Deaths:	960
Rank Among Counties:	16	Teenage Mothers:	221	Infant Deaths:	10
Per Square Mile:	240.0	Low Weight Births:	114	Neonatal Deaths:	7
		First Births:	687	Postneonatal Deaths:	3
				Perinatal Deaths:	9
				Fetal Deaths:	4
MARRIAGE		**DIVORCE**			
Marriages:	884	Divorces:	616		
Marriage Rate:	13.2	Divorce Rate:	9.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,845	13.8	1,793	13.8	43	18.2	6	5.6

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	221	119.8	207	115.4	13	302.3	-	-
Low Weight	114	61.8	107	59.7	7	162.8	-	-
Under 1,500 Grams	18	9.8	17	9.5	1	*	-	-
< 38 Weeks Gestation	300	162.6	282	157.3	17	395.3	1	*
Prenatal Care Began in 1st Trimester	1,503	814.6	1469	819.3	27	627.9	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	5.4	9	5.0	1	*	-	-
Neonatal Deaths	7	3.8	7	3.9	-	-	-	-
Postneonatal Deaths	3	*	2	*	1	*	-	-
Perinatal Deaths	9	4.9	9	5.0	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	960	496	464	930	482	448	26	12	14	4	2	2
Mortality Rate	7.2	7.5	6.9	7.1	7.5	6.8	11.0	9.7	12.5	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	2	2	3	8	8	7	21	40	71	187	601	-
White Male	6	1	1	3	6	5	4	15	21	39	113	268	-
White Female	3	-	1	-	2	3	2	4	16	30	67	320	-
Black Male	-	-	-	-	-	-	-	1	2	-	5	4	-
Black Female	1	-	-	-	-	-	-	1	1	2	2	7	-
Other Male	-	-	-	-	-	-	1	-	-	-	-	1	-
Other Female	-	1	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	960	718.6	930	714.4	26	1,103.1	15	37.1
Diseases of the Heart	378	282.9	369	283.5	8	339.4	-	-
Malignant Neoplasms	251	187.9	241	185.1	9	381.8	2	*
Cerebrovascular Diseases	53	39.7	52	39.9	1	*	-	-
Accidents and Adverse Effects	36	26.9	34	26.1	1	*	10	24.8
Chronic Obstructive Pulmonary Diseases and Allied Conditions	40	29.9	40	30.7	-	-	-	-
Pneumonia and Influenza	23	17.2	23	17.7	-	-	-	-
Diabetes Mellitus	26	19.5	25	19.2	1	*	-	-
Chronic Liver Disease and Cirrhosis	8	6.0	8	6.1	-	-	-	-
Homicide	2	*	1	*	1	*	-	-
Suicide	15	11.2	15	11.5	-	-	2	*
Atherosclerosis	6	4.5	6	4.6	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Montcalm County

POPULATION

As of April 1, 1990:	53,059
Rank Among Counties:	33
Per Square Mile:	74.5

NATALITY

Total Live Births:	824
Teenage Mothers:	134
Low Weight Births:	42
First Births:	306

MORTALITY

Total Deaths:	445
Infant Deaths:	5
Neonatal Deaths:	2
Postneonatal Deaths:	3
Perinatal Deaths:	5
Fetal Deaths:	3

MARRIAGE

Marriages:	502
Marriage Rate:	18.9

DIVORCE

Divorces:	303
Divorce Rate:	11.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	824	15.5	814	15.8	4	*	6	10.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	134	162.6	134	164.6	-	-	-	-
Low Weight	42	51.0	41	50.4	-	-	1	*
Under 1,500 Grams	9	10.9	9	11.1	-	-	-	-
< 38 Weeks Gestation	116	140.8	114	140.0	2	*	-	-
Prenatal Care Began in 1st Trimester	625	758.5	618	759.2	2	*	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	5	*	4	*	-	-	-	-
Fetal Deaths	3	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	445	239	206	440	235	205	3	2	1	2	2	-
Mortality Rate	8.4	8.8	7.8	8.5	9.1	8.0	*	*	*	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	1	1	2	7	6	8	19	35	80	278	-
White Male	1	2	-	1	1	6	3	5	12	22	47	135	-
White Female	4	1	1	-	1	-	3	2	7	13	31	142	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

_LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	445	838.7	440	853.8	3	*	7	44.1
Diseases of the Heart	169	318.5	168	326.0	1	*	-	-
Malignant Neoplasms	88	165.9	87	168.8	-	-	-	-
Cerebrovascular Diseases	22	41.5	21	40.7	1	*	-	-
Accidents and Adverse Effects	22	41.5	22	42.7	-	-	7	44.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	39.6	21	40.7	-	-	-	-
Pneumonia and Influenza	12	22.6	12	23.3	-	-	-	-
Diabetes Mellitus	21	39.6	21	40.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	11.3	6	11.6	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	6	11.3	5	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Montmorency County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,936	Total Live Births:	81	Total Deaths:	121
Rank Among Counties:	76	Teenage Mothers:	17	Infant Deaths:	-
Per Square Mile:	16.2	Low Weight Births:	3	Neonatal Deaths:	-
		First Births:	30	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		DIVORCE	
Marriages:	63	Divorces:	30
Marriage Rate:	14.1	Divorce Rate:	6.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	81	9.1	80	9.0	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	17	209.9	17	212.5	-	-	-	-
Low Weight	3	*	3	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	9	111.1	9	112.5	-	-	-	-
Prenatal Care Began in 1st Trimester	64	790.1	63	787.5	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	121	57	64	121	57	64	-	-	-	-	-	-
Mortality Rate	13.5	13.0	14.0	13.6	13.1	14.1	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	1	2	1	10	29	78	-
White Male	-	-	-	-	-	-	1	2	-	5	13	36	-
White Female	-	-	-	-	-	-	-	-	1	5	16	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	121	1,354.1	121	1,363.1	-	-	-	-
Diseases of the Heart	49	548.3	49	552.0	-	-	-	-
Malignant Neoplasms	30	335.7	30	338.0	-	-	-	-
Cerebrovascular Diseases	8	89.5	8	90.1	-	-	-	-
Accidents and Adverse Effects	2	*	2	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	67.1	6	67.6	-	-	-	-
Pneumonia and Influenza	6	67.1	6	67.6	-	-	-	-
Diabetes Mellitus	1	*	1	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Muskegon County

POPULATION

As of April 1, 1990:	158,983
Rank Among Counties:	12
Per Square Mile:	313.6

NATALITY

Total Live Births:	2,541
Teenage Mothers:	434
Low Weight Births:	164
First Births:	949

MORTALITY

Total Deaths:	1,433
Infant Deaths:	23
Neonatal Deaths:	14
Postneonatal Deaths:	9
Perinatal Deaths:	24
Fetal Deaths:	13

MARRIAGE

Marriages:	1,376
Marriage Rate:	17.3

DIVORCE

Divorces:	866
Divorce Rate:	10.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,541	16.0	1,949	14.4	563	25.9	27	13.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	434	170.8	233	119.5	194	344.6	6	222.2
Low Weight	164	64.5	99	50.8	64	113.7	1	*
Under 1,500 Grams	24	9.4	9	4.6	14	24.9	1	*
< 38 Weeks Gestation	460	181.0	296	151.9	159	282.4	5	*
Prenatal Care Began in 1st Trimester	1,708	672.2	1,459	748.6	235	417.4	13	481.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	23	9.1	12	6.2	11	19.5	-	-
Neonatal Deaths	14	5.5	6	3.1	8	14.2	-	-
Postneonatal Deaths	9	3.5	6	3.1	3	*	-	-
Perinatal Deaths	24	9.4	11	5.6	10	17.7	3	*
Fetal Deaths	13	5.1	8	4.1	2	*	3	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,433	727	706	1,246	629	617	178	91	87	9	7	2
Mortality Rate	9.0	9.4	8.7	9.2	9.5	8.9	8.2	8.6	7.8	4.6	7.5	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	23	4	5	6	7	7	13	38	75	107	239	909	-
White Male	7	1	-	3	5	5	6	18	36	54	117	377	-
White Female	5	1	4	1	-	1	3	11	25	34	88	444	-
Black Male	5	1	-	1	2	1	2	3	5	8	15	48	-
Black Female	6	-	1	1	-	-	1	5	9	9	15	40	-
Other Male	-	-	-	-	-	-	1	1	-	1	4	-	-
Other Female	-	1	-	-	-	-	-	-	-	1	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,433	901.4	1,246	921.0	178	818.8	22	47.2
Diseases of the Heart	494	310.7	428	316.4	62	285.2	-	-
Malignant Neoplasms	341	214.5	309	228.4	31	142.6	-	-
Cerebrovascular Diseases	108	67.9	97	71.7	11	50.6	-	-
Accidents and Adverse Effects	55	34.6	47	34.7	6	27.6	11	23.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	49	30.8	47	34.7	2	*	-	-
Pneumonia and Influenza	49	30.8	42	31.0	7	32.2	1	*
Diabetes Mellitus	39	24.5	34	25.1	5	*	-	-
Chronic Liver Disease and Cirrhosis	14	8.8	13	9.6	1	*	-	-
Homicide	9	5.7	5	*	4	*	2	*
Suicide	22	13.8	21	15.5	1	*	2	*
Atherosclerosis	18	11.3	16	11.8	2	*	-	-
AIDS	5	*	4	*	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Newaygo County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	38,202	Total Live Births:	674	Total Deaths:	349
Rank Among Counties:	40	Teenage Mothers:	103	Infant Deaths:	7
Per Square Mile:	45.1	Low Weight Births:	44	Neonatal Deaths:	5
		First Births:	224	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4

MARRIAGE		DIVORCE	
Marriages:	375	Divorces:	235
Marriage Rate:	19.6	Divorce Rate:	12.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	674	17.6	657	17.6	10	21.2	6	16.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	103	152.8	99	150.7	3	*	-	-
Low Weight	44	65.3	43	65.4	1	*	-	-
Under 1,500 Grams	10	14.8	10	15.2	-	-	-	-
< 38 Weeks Gestation	91	135.0	89	135.5	1	*	1	*
Prenatal Care Began in 1st Trimester	484	718.1	476	724.5	4	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	10.4	6	9.1	-	-	1	*
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	2	*	1	*	-	-	1	*
Perinatal Deaths	6	8.8	6	9.1	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	349	178	171	329	167	162	16	10	6	3	1	2
Mortality Rate	9.1	9.5	8.8	8.8	9.1	8.5	34.0	41.8	25.9	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	-	-	1	3	3	2	3	12	31	54	233	-
White Male	3	-	-	-	1	2	2	-	5	21	31	102	-
White Female	3	-	-	1	2	1	-	1	6	9	20	119	-
Black Male	-	-	-	-	-	-	-	-	1	-	2	7	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	5	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	1	-	-	-	-	-	-	1	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	349	913.6	329	880.7	16	3,397.0	4	*
Diseases of the Heart	128	335.1	120	321.2	71,	486.2	-	-
Malignant Neoplasms	86	225.1	83	222.2	3	*	-	-
Cerebrovascular Diseases	20	52.4	20	53.5	-	-	-	-
Accidents and Adverse Effects	18	47.1	17	45.5	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	44.5	16	42.8	1	*	-	-
Pneumonia and Influenza	21	55.0	19	50.9	2	*	-	-
Diabetes Mellitus	9	23.6	9	24.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	6	15.7	5	*	1	*	-	-
AIDS	1	*	-	-	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Oakland County

POPULATION	
As of April 1, 1990:	1,083,592
Rank Among Counties:	2
Per Square Mile:	1,238.6

NATALITY	
Total Live Births:	16,343
Teenage Mothers:	1,148
Low Weight Births:	1,010
First Births:	6,947

MORTALITY	
Total Deaths:	7,956
Infant Deaths:	132
Neonatal Deaths:	92
Postneonatal Deaths:	40
Perinatal Deaths:	168
Fetal Deaths:	90

MARRIAGE	
Marriages:	8,843
Marriage Rate:	16.3

DIVORCE	
Divorces:	4,986
Divorce Rate:	9.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	16,343	15.1	14,340	14.7	1,557	20.0	283	9.7

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,148	70.2	793	55.3	337	216.4	15	53.0
Low Weight	1,010	61.8	763	53.2	210	134.9	24	84.8
Under 1,500 Grams	219	13.4	159	11.1	51	32.8	6	21.2
< 38 Weeks Gestation	2,692	164.7	2,211	154.2	403	258.8	43	151.9
Prenatal Care Began in 1st Trimester	14,330	876.8	12,859	896.7	1,090	700.1	245	865.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	132	8.1	93	6.5	33	21.2	6	21.2
Neonatal Deaths	92	5.6	68	4.7	18	11.6	6	21.2
Postneonatal Deaths	40	2.4	25	1.7	15	9.6	-	-
Perinatal Deaths	168	10.2	130	9.0	28	17.8	8	27.9
Fetal Deaths	90	5.5	71	4.9	13	8.3	4	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	7,956	3,946	4,010	7,330	3,595	3,735	527	287	240	89	56	33
Mortality Rate	7.3	7.5	7.2	7.5	7.6	7.5	6.8	7.9	5.8	3.0	3.8	2.2

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	132	16	13	25	43	64	68	239	353	568	1,348	5,087	-
White Male	56	8	3	15	20	35	38	152	186	286	742	2,054	-
White Female	37	4	7	7	14	11	12	51	107	210	497	2,778	-
Black Male	22	3	1	2	4	10	9	21	21	37	50	107	-
Black Female	11	1	2	1	2	7	4	12	30	25	43	102	-
Other Male	2	-	-	-	2	-	5	2	6	8	9	22	-
Other Female	4	-	-	-	1	-	-	1	2	1	7	17	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	7,956	734.2	7,330	750.7	527	676.5	97	34.6
Diseases of the Heart	2,820	260.2	2,646	271.0	144	184.9	3	*
Malignant Neoplasms	2,035	187.8	1,886	193.2	126	161.8	14	5.0
Cerebrovascular Diseases	583	53.8	536	54.9	39	50.1	-	-
Accidents and Adverse Effects	204	18.8	176	18.0	25	32.1	32	11.4
Chronic Obstructive Pulmonary Diseases and Allied Conditions	290	26.8	278	28.5	10	12.8	-	-
Pneumonia and Influenza	226	20.9	216	22.1	9	11.6	1	*
Diabetes Mellitus	174	16.1	154	15.8	15	19.3	-	-
Chronic Liver Disease and Cirrhosis	91	8.4	86	8.8	4	*	-	-
Homicide	59	5.4	33	3.4	24	30.8	9	3.2
Suicide	141	13.0	130	13.3	7	9.0	11	3.9
Atherosclerosis	59	5.4	56	5.7	2	*	-	-
AIDS	53	4.9	41	4.2	12	15.4	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Oceana County

POPULATION

As of April 1, 1990:	22,454
Rank Among Counties:	54
Per Square Mile:	41.5

NATALITY

Total Live Births:	344
Teenage Mothers:	41
Low Weight Births:	13
First Births:	110

MORTALITY

Total Deaths:	224
Infant Deaths:	3
Neonatal Deaths:	-
Postneonatal Deaths:	3
Perinatal Deaths:	4
Fetal Deaths:	4

MARRIAGE

Marriages:	203
Marriage Rate:	18.1

DIVORCE

Divorces:	137
Divorce Rate:	12.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	344	15.3	339	15.4	1	*	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	41	119.2	39	115.0	1	*	1	*
Low Weight	13	37.8	13	38.3	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	38	110.5	38	112.1	-	-	-	-
Prenatal Care Began in 1st Trimester	237	689.0	234	690.3	1	*	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	224	113	111	219	112	107	-	-	-	5	1	4
Mortality Rate	10.0	10.2	9.7	9.9	10.3	9.5	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	1	1	-	1	1	-	3	12	16	38	148	-
White Male	3	-	1	-	1	1	-	3	6	8	21	68	-
White Female	-	1	-	-	-	-	-	-	5	8	15	78	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	2	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	224	997.6	219	992.9	-	-	3	*
Diseases of the Heart	73	325.1	70	317.4	-	-	-	-
Malignant Neoplasms	57	253.9	57	258.4	-	-	-	-
Cerebrovascular Diseases	10	44.5	9	40.8	-	-	-	-
Accidents and Adverse Effects	8	35.6	8	36.3	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	44.5	10	45.3	-	-	-	-
Pneumonia and Influenza	11	49.0	11	49.9	-	-	1	*
Diabetes Mellitus	5	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	8	35.6	8	36.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Ogemaw County

POPULATION

As of April 1, 1990:	18,681
Rank Among Counties:	61
Per Square Mile:	32.8

NATALITY

Total Live Births:	264
Teenage Mothers:	42
Low Weight Births:	18
First Births:	101

MORTALITY

Total Deaths:	261
Infant Deaths:	3
Neonatal Deaths:	2
Postneonatal Deaths:	1
Perinatal Deaths:	5
Fetal Deaths:	4

MARRIAGE

Marriages:	173
Marriage Rate:	18.5

DIVORCE

Divorces:	81
Divorce Rate:	8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	264	14.1	256	13.8	-	-	8	50.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	159.1	38	148.4	-	-	4	*
Low Weight	18	68.2	16	62.5	-	-	2	*
Under 1,500 Grams	5	*	5	*	-	-	-	-
< 38 Weeks Gestation	41	155.3	40	156.3	-	-	1	*
Prenatal Care Began in 1st Trimester	201	761.4	195	761.7	-	-	6	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	261	133	128	259	132	127	-	-	-	2	1	1
Mortality Rate	14.0	14.5	13.5	14.0	14.5	13.5	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	3	-	-	2	2	4	2	20	56	169	-
White Male	2	-	2	-	-	2	2	4	2	13	31	74	-
White Female	1	-	1	-	-	-	-	-	-	6	25	94	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	261	1,397.1	259	1,399.7	-	-	3	*
Diseases of the Heart	90	481.8	89	481.0	-	-	-	-
Malignant Neoplasms	78	417.5	77	416.1	-	-	1	*
Cerebrovascular Diseases	17	91.0	17	91.9	-	-	-	-
Accidents and Adverse Effects	12	64.2	12	64.9	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	64.2	12	64.9	-	-	-	-
Pneumonia and Influenza	8	42.8	8	43.2	-	-	-	-
Diabetes Mellitus	9	48.2	9	48.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Ontonagon County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,854	Total Live Births:	88	Total Deaths:	123
Rank Among Counties:	77	Teenage Mothers:	12	Infant Deaths:	2
Per Square Mile:	6.8	Low Weight Births:	5	Neonatal Deaths:	1
		First Births:	27	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-

MARRIAGE		DIVORCE	
Marriages:	59	Divorces:	27
Marriage Rate:	13.3	Divorce Rate:	6.1

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	88	9.9	86	9.9	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	12	136.4	11	127.9	-	-	1	*
Low Weight	5	*	5	*	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	15	170.5	15	174.4	-	-	-	-
Prenatal Care Began in 1st Trimester	66	750.0	64	744.2	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	123	68	55	123	68	55	-	-	-	-	-	-
Mortality Rate	13.9	15.1	12.6	14.1	15.4	12.8	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	-	1	-	-	-	4	7	14	94	-
White Male	2	1	-	-	1	-	-	-	4	4	9	47	-
White Female	-	-	-	-	-	-	-	-	-	3	5	47	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,389.2	123	1,409.6	-	-	2	*
Diseases of the Heart	40	451.8	40	458.4	-	-	-	-
Malignant Neoplasms	21	237.2	21	240.7	-	-	-	-
Cerebrovascular Diseases	12	135.5	12	137.5	-	-	-	-
Accidents and Adverse Effects	6	67.8	6	68.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	*	2	*	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	9	101.6	9	103.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	2	*	2	*	-	-	1	*
Atherosclerosis	6	67.8	6	68.8	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Osceola County

POPULATION

As of April 1, 1990:	20,146
Rank Among Counties:	59
Per Square Mile:	35.4

NATALITY

Total Live Births:	313
Teenage Mothers:	54
Low Weight Births:	19
First Births:	111

MORTALITY

Total Deaths:	205
Infant Deaths:	4
Neonatal Deaths:	2
Postneonatal Deaths:	2
Perinatal Deaths:	3
Fetal Deaths:	1

MARRIAGE

Marriages:	173
Marriage Rate:	17.2

DIVORCE

Divorces:	67
Divorce Rate:	6.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	313	15.5	310	15.6	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	54	172.5	53	171.0	-	-	1	*
Low Weight	19	60.7	19	61.3	-	-	-	-
Under 1,500 Grams	4	*	4	*	-	-	-	-
< 38 Weeks Gestation	43	137.4	43	138.7	-	-	-	-
Prenatal Care Began in 1st Trimester	215	686.9	213	687.1	-	-	2	*

Note: Rate is per 1,000 population in 199[illegible]us and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	205	119	86	203	118	85	-	-	-	2	1	1
Mortality Rate	10.2	11.9	8.5	10.2	12.0	8.5	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	-	2	-	1	-	5	3	21	44	124	-
White Male	-	-	-	2	-	1	-	4	2	17	29	63	-
White Female	4	1	-	-	-	-	-	-	1	4	15	60	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	205	1,017.6	203	1,018.7	-	-	3	*
Diseases of the Heart	73	362.4	73	366.3	-	-	-	-
Malignant Neoplasms	46	228.3	46	230.8	-	-	-	-
Cerebrovascular Diseases	11	54.6	10	50.2	-	-	1	*
Accidents and Adverse Effects	12	59.6	12	60.2	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	59.6	12	60.2	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	5	*	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	3	*	2	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Oscoda County

POPULATION	
As of April 1, 1990:	7,842
Rank Among Counties:	81
Per Square Mile:	13.8

NATALITY	
Total Live Births:	103
Teenage Mothers:	13
Low Weight Births:	6
First Births:	32

MORTALITY	
Total Deaths:	98
Infant Deaths:	-
Neonatal Deaths:	-
Postneonatal Deaths:	-
Perinatal Deaths:	1
Fetal Deaths:	1

MARRIAGE	
Marriages:	75
Marriage Rate:	19.1

DIVORCE	
Divorces:	34
Divorce Rate:	8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	103	13.1	102	13.1	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	13	126.2	12	117.6	-	-	1	*
Low Weight	6	58.3	6	58.8	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	13	126.2	12	117.6	-	-	1	*
Prenatal Care Began in 1st Trimester	70	679.6	69	676.5	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	*	1	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	98	50	48	96	50	46	-	-	-	2	-	2
Mortality Rate	12.5	12.9	12.1	12.3	13.0	11.6	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	-	3	3	9	19	64	-
White Male	-	-	-	-	-	-	-	2	2	5	12	29	-
White Female	-	-	-	-	-	-	-	1	1	3	7	34	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	98	1,249.7	96	1,231.7	-	-	-	-
Diseases of the Heart	40	510.1	40	513.2	-	-	-	-
Malignant Neoplasms	27	344.3	26	333.6	-	-	-	-
Cerebrovascular Diseases	7	89.3	7	89.8	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	76.5	6	77.0	-	-	-	-
Pneumonia and Influenza	2	*	2	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Otsego County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	17,957	Total Live Births:	288	Total Deaths:	148
Rank Among Counties:	64	Teenage Mothers:	30	Infant Deaths:	-
Per Square Mile:	34.8	Low Weight Births:	13	Neonatal Deaths:	-
		First Births:	103	Postneonatal Deaths:	-
				Perinatal Deaths:	3
				Fetal Deaths:	3
MARRIAGE		**DIVORCE**			
Marriages:	186	Divorces:	98		
Marriage Rate:	20.7	Divorce Rate:	10.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	288	16.0	285	16.1	-	-	2	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	30	104.2	29	101.8	-	-	-	-
Low Weight	13	45.1	13	45.6	-	-	-	-
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	36	125.0	36	126.3	-	-	-	-
Prenatal Care Began in 1st Trimester	238	826.4	236	828.1	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	*	3	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	148	73	75	147	73	74	-	-	-	1	-	1
Mortality Rate	8.2	8.3	8.2	8.3	8.4	8.2	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	1	1	-	3	7	9	18	108	-
White Male	-	-	-	1	-	1	-	2	5	7	13	44	-
White Female	-	-	-	-	1	-	-	1	1	2	5	64	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	148	824.2	147	828.1	-	-	2	*
Diseases of the Heart	46	256.2	46	259.1	-	-	-	-
Malignant Neoplasms	32	178.2	32	180.3	-	-	-	-
Cerebrovascular Diseases	16	89.1	16	90.1	-	-	-	-
Accidents and Adverse Effects	7	39.0	6	33.8	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	50.1	9	50.7	-	-	-	-
Pneumonia and Influenza	9	50.1	9	50.7	-	-	-	-
Diabetes Mellitus	3	*	3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	4	*	4	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Ottawa County

POPULATION

As of April 1, 1990:	187,768
Rank Among Counties:	10
Per Square Mile:	331.1

NATALITY

Total Live Births:	3,193
Teenage Mothers:	262
Low Weight Births:	139
First Births:	1,165

MORTALITY

Total Deaths:	1,152
Infant Deaths:	17
Neonatal Deaths:	6
Postneonatal Deaths:	11
Perinatal Deaths:	20
Fetal Deaths:	16

MARRIAGE

Marriages:	946
Marriage Rate:	10.1

DIVORCE

Divorces:	361
Divorce Rate:	3.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,193	17.0	3,103	16.9	19	18.1	68	21.5

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	262	82.1	247	79.6	8	421.1	7	102.9
Low Weight	139	43.5	137	44.2	-	-	2	*
Under 1,500 Grams	22	6.9	22	7.1	-	-	-	-
< 38 Weeks Gestation	476	149.1	455	146.6	7	368.4	13	191.2
Prenatal Care Began in 1st Trimester	2,768	866.9	2,707	872.4	10	526.3	48	705.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	17	5.3	15	4.8	2	*	-	-
Neonatal Deaths	6	1.9	5	*	1	*	-	-
Postneonatal Deaths	11	3.4	10	3.2	1	*	-	*
Perinatal Deaths	20	6.2	18	5.8	1	*	1	*
Fetal Deaths	16	5.0	15	4.8	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,152	575	577	1,137	564	573	7	5	2	8	6	2
Mortality Rate	6.1	6.2	6.1	6.2	6.2	6.2	6.7	*	*	2.5	3.9	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	17	3	2	1	11	10	11	38	46	65	163	785	-
White Male	12	3	1	-	8	7	9	20	24	36	96	348	-
White Female	3	-	1	1	3	3	1	18	22	26	64	431	-
Black Male	1	-	-	-	-	-	-	-	-	1	1	2	-
Black Female	1	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	1	-	-	2	2	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,152	613.5	1,137	619.4	7	667.9	17	28.7
Diseases of the Heart	354	188.5	348	189.6	3	*	-	-
Malignant Neoplasms	277	147.5	274	149.3	-	-	1	*
Cerebrovascular Diseases	76	40.5	75	40.9	-	-	-	-
Accidents and Adverse Effects	57	30.4	57	31.1	-	-	9	15.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	51	27.2	51	27.8	-	-	-	-
Pneumonia and Influenza	50	26.6	50	27.2	-	-	-	-
Diabetes Mellitus	24	12.8	24	13.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	13	6.9	13	7.1	-	-	-	-
Homicide	5	*	5	*	-	-	2	*
Suicide	18	9.6	17	9.3	1	*	-	-
Atherosclerosis	12	6.4	12	6.5	-	-	-	-
AIDS	5	*	5	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Presque Isle County

POPULATION

As of April 1, 1990:	13,743
Rank Among Counties:	67
Per Square Mile:	21.0

MARRIAGE

Marriages:	84
Marriage Rate:	12.2

NATALITY

Total Live Births:	145
Teenage Mothers:	9
Low Weight Births:	8
First Births:	49

DIVORCE

Divorces:	41
Divorce Rate:	6.0

MORTALITY

Total Deaths:	163
Infant Deaths:	2
Neonatal Deaths:	2
Postneonatal Deaths:	-
Perinatal Deaths:	5
Fetal Deaths:	3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	145	10.6	144	10.5	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	62.1	9	62.5	-	-	-	-
Low Weight	8	55.2	8	55.6	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	18	124.1	18	125.0	-	-	-	-
Prenatal Care Began in 1st Trimester	132	910.3	131	909.7	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	163	98	65	163	98	65	-	-	-	-	-	-
Mortality Rate	11.9	14.5	9.3	11.9	14.5	9.4	-	-	-	-	-	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	1	-	-	1	4	9	32	114	-
White Male	1	-	-	-	1	-	-	1	3	7	21	64	-
White Female	1	-	-	-	-	-	-	-	1	2	11	50	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	163	1,186.1	163	1,193.4	-	-	1	*
Diseases of the Heart	46	334.7	46	336.8	-	-	-	-
Malignant Neoplasms	48	349.3	48	351.4	-	-	-	-
Cerebrovascular Diseases	13	94.6	13	95.2	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	58.2	8	58.6	-	-	-	-
Pneumonia and Influenza	9	65.5	9	65.9	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Roscommon County

POPULATION

As of April 1, 1990:	19,776
Rank Among Counties:	60
Per Square Mile:	37.4

NATALITY

Total Live Births:	237
Teenage Mothers:	47
Low Weight Births:	14
First Births:	87

MORTALITY

Total Deaths:	280
Infant Deaths:	1
Neonatal Deaths:	1
Postneonatal Deaths:	-
Perinatal Deaths:	2
Fetal Deaths:	1

MARRIAGE

Marriages:	150
Marriage Rate:	15.2

DIVORCE

Divorces:	92
Divorce Rate:	9.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	237	12.0	232	11.8	-	-	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	47	198.3	47	202.6	-	-	-	-
Low Weight	14	59.1	13	56.0	-	-	1	*
Under 1,500 Grams	2	*	2	*	-	-	-	-
< 38 Weeks Gestation	27	113.9	27	116.4	-	-	-	-
Prenatal Care Began in 1st Trimester	184	776.4	180	775.9	-	-	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	280	145	135	278	144	134	-	-	-	2	1	1
Mortality Rate	14.2	15.0	13.3	14.2	15.1	13.3	-	-	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	-	-	5	9	19	55	190	-
White Male	1	-	-	-	1	-	-	3	7	12	30	90	-
White Female	-	-	-	-	-	-	-	2	2	7	25	98	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	280	1,415.9	278	1,417.3	-	-	1	*
Diseases of the Heart	109	551.2	108	550.6	-	-	-	-
Malignant Neoplasms	67	338.8	67	341.6	-	-	-	-
Cerebrovascular Diseases	18	91.0	18	91.8	-	-	-	-
Accidents and Adverse Effects	5	*	4	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	96.1	19	96.9	-	-	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	9	45.5	9	45.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Saginaw County

POPULATION

As of April 1, 1990:	211,946
Rank Among Counties:	9
Per Square Mile:	260.0

NATALITY

Total Live Births:	3,534
Teenage Mothers:	645
Low Weight Births:	336
First Births:	1,364

MORTALITY

Total Deaths:	1,778
Infant Deaths:	51
Neonatal Deaths:	35
Postneonatal Deaths:	16
Perinatal Deaths:	51
Fetal Deaths:	18

MARRIAGE

Marriages:	1,621
Marriage Rate:	15.3

DIVORCE

Divorces:	930
Divorce Rate:	8.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,534	16.7	2,475	14.4	1,019	27.2	34	13.8

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	645	182.5	299	120.8	338	331.7	6	176.5
Low Weight	336	95.1	172	69.5	162	159.0	2	*
Under 1,500 Grams	74	20.9	37	14.9	37	36.3	-	-
< 38 Weeks Gestation	753	213.1	440	177.8	307	301.3	5	*
Prenatal Care Began in 1st Trimester	2,747	777.3	2,057	831.1	664	651.6	24	705.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	51	14.4	21	8.5	30	29.4	-	-
Neonatal Deaths	35	9.9	16	6.5	19	18.6	-	-
Postneonatal Deaths	16	4.5	5	*	11	10.8	-	-
Perinatal Deaths	51	14.4	24	9.7	25	24.4	-	-
Fetal Deaths	18	5.1	9	3.6	7	6.8	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,778	887	891	1,465	733	732	308	153	155	5	1	4
Mortality Rate	8.4	8.8	8.0	8.5	8.9	8.2	8.2	9.0	7.6	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	51	3	4	5	14	22	20	55	80	150	304	1,070	-
White Male	10	2	2	4	4	10	7	24	32	73	151	414	-
White Female	11	-	1	1	6	3	4	14	20	49	88	535	-
Black Male	13	1	-	-	2	9	5	11	17	13	33	49	-
Black Female	17	-	1	-	2	-	4	5	11	15	31	69	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	3	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,778	838.9	1,465	851.4	308	823.3	26	41.3
Diseases of the Heart	569	268.5	495	287.7	72	192.5	1	*
Malignant Neoplasms	445	210.0	375	217.9	68	181.8	-	-
Cerebrovascular Diseases	139	65.6	115	66.8	24	64.2	1	*
Accidents and Adverse Effects	64	30.2	57	33.1	7	18.7	11	17.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	68	32.1	62	36.0	6	16.0	-	-
Pneumonia and Influenza	49	23.1	44	25.6	5	*	-	-
Diabetes Mellitus	57	26.9	41	23.8	16	42.8	-	-
Chronic Liver Disease and Cirrhosis	16	7.5	11	6.4	5	*	-	-
Homicide	39	18.4	13	7.6	26	69.5	6	9.5
Suicide	24	11.3	20	11.6	4	*	3	*
Atherosclerosis	23	10.9	19	11.0	4	*	-	-
AIDS	6	2.8	4	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of St. Clair County

POPULATION	
As of April 1, 1990:	145,607
Rank Among Counties:	14
Per Square Mile:	198.3

NATALITY	
Total Live Births:	2,110
Teenage Mothers:	246
Low Weight Births:	93
First Births:	837

MORTALITY	
Total Deaths:	1,277
Infant Deaths:	16
Neonatal Deaths:	12
Postneonatal Deaths:	4
Perinatal Deaths:	17
Fetal Deaths:	8

MARRIAGE	
Marriages:	1,134
Marriage Rate:	15.6

DIVORCE	
Divorces:	741
Divorce Rate:	10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,110	14.5	2,029	14.4	51	16.9	27	21.3

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	246	116.6	230	113.4	11	215.7	4	*
Low Weight	93	44.1	92	45.3	1	*	-	-
Under 1,500 Grams	18	8.5	17	8.4	1	*	-	-
< 38 Weeks Gestation	315	149.3	300	147.9	9	176.5	5	*
Prenatal Care Began in 1st Trimester	1,692	801.9	1,641	808.8	31	607.8	17	629.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	16	7.6	14	6.9	2	*	-	-
Neonatal Deaths	12	5.7	11	5.4	1	*	-	-
Postneonatal Deaths	4	*	3	*	1	*	-	-
Perinatal Deaths	17	8.0	16	7.9	1	*	-	-
Fetal Deaths	8	3.8	7	3.4	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,277	696	581	1,237	671	566	32	20	12	7	5	2
Mortality Rate	8.8	9.8	7.8	8.8	9.8	7.8	10.6	13.7	7.7	5.5	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	16	2	2	3	8	9	8	36	37	96	205	855	-
White Male	12	2	1	3	6	7	6	25	25	65	127	392	-
White Female	2	-	-	-	2	1	2	7	9	28	75	440	-
Black Male	2	-	1	-	-	1	-	1	1	1	1	12	-
Black Female	-	-	-	-	-	-	-	1	2	1	1	7	-
Other Male	-	-	-	-	-	-	-	2	-	1	-	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,277	877.0	1,237	875.3	32	1,061.0	15	35.2
Diseases of the Heart	472	324.2	461	326.2	6	198.9	-	-
Malignant Neoplasms	332	228.0	318	225.0	12	397.9	-	-
Cerebrovascular Diseases	89	61.1	89	63.0	-	-	-	-
Accidents and Adverse Effects	43	29.5	42	29.7	-	-	10	23.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	58	39.8	55	38.9	3	*	-	-
Pneumonia and Influenza	32	22.0	31	21.9	1	*	-	-
Diabetes Mellitus	34	23.4	33	23.4	1	*	-	-
Chronic Liver Disease and Cirrhosis	11	7.6	11	7.8	-	-	-	-
Homicide	8	5.5	8	5.7	-	-	1	*
Suicide	22	15.1	21	14.9	1	*	1	*
Atherosclerosis	8	5.5	8	5.7	-	-	-	-
AIDS	4	*	3	*	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of St. Joseph County

POPULATION

As of April 1, 1990:	58,913
Rank Among Counties:	28
Per Square Mile:	117.2

NATALITY

Total Live Births:	811
Teenage Mothers:	125
Low Weight Births:	51
First Births:	303

MORTALITY

Total Deaths:	562
Infant Deaths:	11
Neonatal Deaths:	5
Postneonatal Deaths:	6
Perinatal Deaths:	12
Fetal Deaths:	8

MARRIAGE

Marriages:	536
Marriage Rate:	18.2

DIVORCE

Divorces:	362
Divorce Rate:	12.3

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	811	13.8	784	13.8	23	14.3	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	125	154.1	122	155.6	3	*	-	-
Low Weight	51	62.9	51	65.1	-	-	-	-
Under 1,500 Grams	9	11.1	9	11.5	-	-	-	-
< 38 Weeks Gestation	119	146.7	111	141.6	7	304.3	1	*
Prenatal Care Began in 1st Trimester	627	773.1	612	780.6	13	565.2	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	11	13.6	11	14.0	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	6	7.4	6	7.7	-	-	-	-
Perinatal Deaths	12	14.7	11	13.9	-	-	1	*
Fetal Deaths	8	9.8	7	8.8	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	562	286	276	536	276	260	23	9	14	3	1	2
Mortality Rate	9.5	9.9	9.2	9.4	9.9	9.0	14.3	11.5	16.9	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	11	2	1	1	3	5	2	12	25	39	98	363	-
White Male	9	2	-	1	1	3	2	9	15	19	61	154	-
White Female	2	-	1	-	2	2	-	3	9	17	34	190	-
Black Male	-	-	-	-	-	-	-	-	1	2	-	6	-
Black Female	-	-	-	-	-	-	-	-	-	-	3	11	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	562	953.9	536	943.4	23	1,430.3	7	39.5
Diseases of the Heart	178	302.1	170	299.2	8	497.5	-	-
Malignant Neoplasms	133	225.8	123	216.5	9	559.7	1	*
Cerebrovascular Diseases	36	61.1	35	61.6	1	*	-	-
Accidents and Adverse Effects	27	45.8	26	45.8	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	30	50.9	29	51.0	-	-	-	-
Pneumonia and Influenza	26	44.1	26	45.8	-	-	-	-
Diabetes Mellitus	32	54.3	31	54.6	1	*	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	7	11.9	7	12.3	-	-	-	-
Atherosclerosis	6	10.2	5	*	1	*	-	-
AIDS	5	*	5	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Sanilac County

POPULATION
As of April 1, 1990: 39,928
Rank Among Counties: 38
Per Square Mile: 41.4

NATALITY
Total Live Births: 501
Teenage Mothers: 48
Low Weight Births: 32
First Births: 187

MORTALITY
Total Deaths: 450
Infant Deaths: 9
Neonatal Deaths: 7
Postneonatal Deaths: 2
Perinatal Deaths: 5
Fetal Deaths: 1

MARRIAGE
Marriages: 317
Marriage Rate: 15.9

DIVORCE
Divorces: 174
Divorce Rate: 8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	501	12.5	496	12.5	-	-	5	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	95.8	48	96.8	-	-	-	-
Low Weight	32	63.9	32	64.5	-	-	-	-
Under 1,500 Grams	6	12.0	6	12.1	-	-	-	-
< 38 Weeks Gestation	80	159.7	79	159.3	-	-	1	*
Prenatal Care Began in 1st Trimester	382	762.5	379	764.1	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	18.0	9	18.1	-	-	-	-
Neonatal Deaths	7	14.0	7	14.1	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	5	*	5	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	450	238	212	449	238	211	-	-	-	1	-	1
Mortality Rate	11.3	12.2	10.4	11.3	12.2	10.5	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	9	2	-	-	5	2	3	10	17	27	76	299	-
White Male	4	1	-	-	4	1	2	6	10	17	42	151	-
White Female	5	1	-	-	1	1	1	4	7	10	34	147	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	450	1,127.0	449	1,133.5	-	-	7	59.6
Diseases of the Heart	138	345.6	138	348.4	-	-	-	-
Malignant Neoplasms	117	293.0	117	295.4	-	-	-	-
Cerebrovascular Diseases	34	85.2	34	85.8	-	-	-	-
Accidents and Adverse Effects	24	60.1	24	60.6	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	15	37.6	15	37.9	-	-	-	-
Pneumonia and Influenza	6	15.0	6	15.1	-	-	1	*
Diabetes Mellitus	19	47.6	18	45.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	*	-	-	1	*
Atherosclerosis	2	*	2	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Schoolcraft County

POPULATION
As of April 1, 1990: 8,302
Rank Among Counties: 79
Per Square Mile: 7.1

NATALITY
Total Live Births: 90
Teenage Mothers: 14
Low Weight Births: 3
First Births: 36

MORTALITY
Total Deaths: 96
Infant Deaths: -
Neonatal Deaths: -
Postneonatal Deaths: -
Perinatal Deaths: -
Fetal Deaths: -

MARRIAGE
Marriages: 88
Marriage Rate: 21.2

DIVORCE
Divorces: 37
Divorce Rate: 8.9

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	90	10.8	88	11.3	-	-	1	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	14	155.6	13	147.7	-	-	1	*
Low Weight	3	*	3	*	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	13	144.4	13	147.7	-	-	-	-
Prenatal Care Began in 1st Trimester	70	777.8	68	772.7	-	-	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	96	50	46	94	50	44	-	-	-	2	-	2
Mortality Rate	11.6	12.5	10.7	12.1	13.5	10.9	-	-	-	*	-	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	1	-	-	-	-	2	2	6	19	66	-
White Male	-	-	1	-	-	-	-	1	2	1	10	35	-
White Female	-	-	-	-	-	-	-	1	-	5	8	30	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	96	1,156.3	94	1,211.2	-	-	1	*
Diseases of the Heart	34	409.5	34	438.1	-	-	-	-
Malignant Neoplasms	22	265.0	21	270.6	-	-	-	-
Cerebrovascular Diseases	3	*	3	*	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	*	3	*	-	-	-	-
Pneumonia and Influenza	7	84.3	7	90.2	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Shiawassee County

POPULATION	
As of April 1, 1990:	69,770
Rank Among Counties:	26
Per Square Mile:	129.1

NATALITY	
Total Live Births:	980
Teenage Mothers:	138
Low Weight Births:	54
First Births:	402

MORTALITY	
Total Deaths:	558
Infant Deaths:	4
Neonatal Deaths:	2
Postneonatal Deaths:	2
Perinatal Deaths:	10
Fetal Deaths:	8

MARRIAGE	
Marriages:	599
Marriage Rate:	17.2

DIVORCE	
Divorces:	298
Divorce Rate:	8.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	980	14.0	973	14.1	2	*	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	138	140.8	137	140.8	-	-	1	*
Low Weight	54	55.1	54	55.5	-	-	-	-
Under 1,500 Grams	9	9.2	9	9.2	-	-	-	-
< 38 Weeks Gestation	133	135.7	131	134.6	1	*	-	-
Prenatal Care Began in 1st Trimester	808	824.5	803	825.3	2	*	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	10	10.1	10	10.2	-	-	-	-
Fetal Deaths	8	8.1	8	8.2	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	558	286	272	554	284	270	2	1	1	2	1	1
Mortality Rate	8.0	8.4	7.6	8.0	8.4	7.6	*	*	*	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	-	-	8	5	6	23	22	43	119	328	-
White Male	3	-	-	-	5	4	3	16	7	30	74	142	-
White Female	1	-	-	-	3	1	3	7	13	13	44	185	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	558	799.8	554	802.5	2	*	8	37.7
Diseases of the Heart	168	240.8	166	240.5	-	-	-	-
Malignant Neoplasms	144	206.4	144	208.6	-	-	1	*
Cerebrovascular Diseases	30	43.0	30	43.5	-	-	-	-
Accidents and Adverse Effects	37	53.0	37	53.6	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	24	34.4	24	34.8	-	-	-	-
Pneumonia and Influenza	22	31.5	22	31.9	-	-	-	-
Diabetes Mellitus	23	33.0	23	33.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	6	8.6	6	8.7	-	-	3	*
Atherosclerosis	13	18.6	12	17.4	1	*	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Tuscola County

POPULATION		**NATALITY**		**MORTALITY**	
As of April 1, 1990:	55,498	Total Live Births:	811	Total Deaths:	447
Rank Among Counties:	31	Teenage Mothers:	89	Infant Deaths:	3
Per Square Mile:	68.3	Low Weight Births:	39	Neonatal Deaths:	2
		First Births:	316	Postneonatal Deaths:	1
				Perinatal Deaths:	7
				Fetal Deaths:	6
MARRIAGE		**DIVORCE**			
Marriages:	409	Divorces:	272		
Marriage Rate:	14.7	Divorce Rate:	9.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	811	14.6	801	14.7	6	12.4	4	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	89	109.7	87	108.6	1	*	1	*
Low Weight	39	48.1	38	47.4	-	-	1	*
Under 1,500 Grams	10	12.3	9	11.2	-	-	1	*
< 38 Weeks Gestation	123	151.7	120	149.8	2	*	1	*
Prenatal Care Began in 1st Trimester	655	807.6	648	809.0	3	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	7	8.6	7	8.7	-	-	-	-
Fetal Deaths	6	7.3	6	7.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	447	217	230	442	215	227	1	1	-	4	1	3
Mortality Rate	8.1	7.9	8.2	8.1	8.0	8.2	*	*	-	*	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	1	2	1	3	5	16	17	37	76	286	-
White Male	3	-	1	1	1	3	5	13	10	17	41	120	-
White Female	-	-	-	1	-	-	-	3	6	20	33	164	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	447	805.4	442	811.7	1	*	4	*
Diseases of the Heart	136	245.1	135	247.9	-	-	-	-
Malignant Neoplasms	115	207.2	114	209.4	-	-	-	-
Cerebrovascular Diseases	30	54.1	30	55.1	-	-	-	-
Accidents and Adverse Effects	23	41.4	22	40.4	1	*	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	36.0	20	36.7	-	-	-	-
Pneumonia and Influenza	14	25.2	14	25.7	-	-	-	-
Diabetes Mellitus	25	45.0	25	45.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	13	23.4	12	22.0	-	-	1	*
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Van Buren County

POPULATION
As of April 1, 1990: 70,060
Rank Among Counties: 25
Per Square Mile: 114.6

NATALITY
Total Live Births: 1,109
Teenage Mothers: 191
Low Weight Births: 77
First Births: 405

MORTALITY
Total Deaths: 627
Infant Deaths: 10
Neonatal Deaths: 5
Postneonatal Deaths: 5
Perinatal Deaths: 4
Fetal Deaths: 2

MARRIAGE
Marriages: 598
Marriage Rate: 17.1

DIVORCE
Divorces: 333
Divorce Rate: 9.5

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,109	15.8	987	15.3	102	21.6	16	17.4

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	191	172.2	150	152.0	37	362.7	4	*
Low Weight	77	69.4	64	64.8	13	127.5	-	-
Under 1,500 Grams	12	10.8	11	11.1	1	*	-	-
< 38 Weeks Gestation	179	161.4	154	156.0	22	215.7	2	*
Prenatal Care Began in 1st Trimester	759	684.4	710	719.4	42	411.8	7	437.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	9.0	9	9.1	1	*	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	5	*	4	*	1	*	-	-
Perinatal Deaths	4	*	3	*	1	*	-	-
Fetal Deaths	2	*	1	*	1	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	627	335	292	557	292	265	63	38	25	7	5	2
Mortality Rate	8.9	9.8	8.2	8.6	9.3	8.1	13.3	16.9	10.1	7.6	*	*

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	1	3	3	-	6	4	14	30	57	98	401	-
White Male	4	1	1	2	-	3	3	10	13	37	53	165	-
White Female	5	-	1	-	-	1	-	1	11	17	36	193	-
Black Male	1	-	1	1	-	1	1	2	3	1	4	23	-
Black Female	-	-	-	-	-	-	-	-	3	1	5	16	-
Other Male	-	-	-	-	-	1	-	-	-	1	-	3	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	627	894.9	557	864.7	63	1,333.3	7	32.9
Diseases of the Heart	187	266.9	169	262.4	17	359.8	-	-
Malignant Neoplasms	157	224.1	137	212.7	18	381.0	-	-
Cerebrovascular Diseases	47	67.1	40	62.1	6	127.0	-	-
Accidents and Adverse Effects	44	62.8	35	54.3	7	148.1	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	28	40.0	25	38.8	3	*	1	*
Pneumonia and Influenza	19	27.1	17	26.4	2	*	-	-
Diabetes Mellitus	15	21.4	13	20.2	2	*	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	5	*	3	*	2	*	2	*
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	10	14.3	10	15.5	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Washtenaw County

POPULATION	
As of April 1, 1990:	282,937
Rank Among Counties:	6
Per Square Mile:	398.4

NATALITY	
Total Live Births:	4,093
Teenage Mothers:	324
Low Weight Births:	261
First Births:	1,775

MORTALITY	
Total Deaths:	1,593
Infant Deaths:	39
Neonatal Deaths:	28
Postneonatal Deaths:	11
Perinatal Deaths:	45
Fetal Deaths:	20

MARRIAGE	
Marriages:	2,229
Marriage Rate:	15.8

DIVORCE	
Divorces:	1,216
Divorce Rate:	8.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,093	14.5	3,168	13.3	633	19.8	232	18.0

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	324	79.2	178	56.2	143	225.9	1	*
Low Weight	261	63.8	150	47.3	90	142.2	17	73.3
Under 1,500 Grams	64	15.6	32	10.1	28	44.2	3	*
< 38 Weeks Gestation	616	150.5	434	137.0	151	238.5	28	120.7
Prenatal Care Began in 1st Trimester	3,306	807.7	2,693	850.1	404	638.2	187	806.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	39	9.5	24	7.6	14	22.1	1	*
Neonatal Deaths	28	6.8	17	5.4	10	15.8	1	*
Postneonatal Deaths	11	2.7	7	2.2	4	*	-	-
Perinatal Deaths	45	10.9	23	7.2	20	31.1	1	*
Fetal Deaths	20	4.9	8	2.5	11	17.1	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,593	759	834	1,378	637	741	196	112	84	19	10	9
Mortality Rate	5.6	5.4	5.8	5.8	5.4	6.2	6.1	7.3	5.1	1.5	1.5	1.4

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	39	4	2	3	11	19	20	57	86	122	256	974	-
White Male	14	3	-	2	7	6	14	27	49	49	124	342	-
White Female	10	-	-	1	3	8	3	16	21	49	93	537	-
Black Male	11	-	-	-	-	2	2	6	12	16	20	43	-
Black Female	3	1	-	-	1	1	1	7	4	8	16	42	-
Other Male	1	-	2	-	-	1	-	1	-	-	3	2	-
Other Female	-	-	-	-	-	1	-	-	-	-	-	8	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,593	563.0	1,378	578.8	196	613.9	20	27.3
Diseases of the Heart	484	171.1	427	179.3	52	162.9	2	*
Malignant Neoplasms	413	146.0	354	148.7	55	172.3	1	*
Cerebrovascular Diseases	100	35.3	92	38.6	6	18.8	1	*
Accidents and Adverse Effects	66	23.3	54	22.7	10	31.3	7	9.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	52	18.4	51	21.4	1	*	-	-
Pneumonia and Influenza	53	18.7	50	21.0	3	*	-	-
Diabetes Mellitus	51	18.0	38	16.0	12	37.6	-	-
Chronic Liver Disease and Cirrhosis	15	5.3	10	4.2	5	*	-	-
Homicide	9	3.2	6	2.5	3	*	2	*
Suicide	26	9.2	26	10.9	-	-	2	*
Atherosclerosis	11	3.9	9	3.8	2	*	-	-
AIDS	16	5.7	14	5.9	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Wayne County

POPULATION	
As of April 1, 1990:	2,111,687
Rank Among Counties:	1
Per Square Mile:	3,433.1

NATALITY	
Total Live Births:	37,264
Teenage Mothers:	6,306
Low Weight Births:	4,071
First Births:	13,765

MORTALITY	
Total Deaths:	20,857
Infant Deaths:	590
Neonatal Deaths:	423
Postneonatal Deaths:	167
Perinatal Deaths:	555
Fetal Deaths:	191

MARRIAGE	
Marriages:	11,701
Marriage Rate:	11.1

DIVORCE	
Divorces:	7,639
Divorce Rate:	7.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	37,264	17.6	17,358	14.1	19,376	22.8	429	14.1

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	6,306	169.2	1,506	86.8	4,749	245.1	42	97.9
Low Weight	4,071	109.2	1,026	59.1	3,007	155.2	29	67.6
Under 1,500 Grams	904	24.3	180	10.4	715	36.9	7	16.3
< 38 Weeks Gestation	8,113	217.7	2,682	154.5	5,330	275.1	73	170.2
Prenatal Care Began in 1st Trimester	27,064	726.3	14,311	824.5	12,376	638.7	320	745.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	590	15.8	135	7.8	449	23.2	6	14.0
Neonatal Deaths	423	11.4	88	5.1	332	17.1	3	*
Postneonatal Deaths	167	4.5	47	2.7	117	6.0	3	*
Perinatal Deaths	555	14.8	153	8.8	391	20.1	6	13.9
Fetal Deaths	191	5.1	82	4.7	101	5.2	3	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	20,857	10,960	9,895	12,046	6,106	5,940	8,683	4,776	3,905	113	69	44
Mortality Rate	9.9	10.9	8.9	9.8	10.2	9.4	10.2	12.3	8.4	3.7	4.6	2.8

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	590	91	34	52	190	304	321	882	1,390	1,756	3,807	11,437	3
White Male	70	18	6	13	36	69	70	233	362	523	1,236	3,469	1
White Female	65	12	2	4	15	18	28	90	187	340	914	4,264	1
Black Male	259	31	17	20	112	167	160	378	526	500	896	1,710	-
Black Female	188	30	8	15	25	49	58	177	298	377	736	1,943	1
Other Male	5	-	1	-	2	-	1	2	12	8	13	25	-
Other Female	1	-	-	-	-	1	2	2	5	6	10	17	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	20,857	987.7	12,046	979.6	8,683	1,019.6	367	61.3
Diseases of the Heart	7,258	343.7	4,631	376.6	2,592	304.4	13	2.2
Malignant Neoplasms	4,685	221.9	2,798	227.5	1,865	219.0	22	3.7
Cerebrovascular Diseases	1,105	52.3	689	56.0	407	47.8	2	*
Accidents and Adverse Effects	628	29.7	351	28.5	269	31.6	91	15.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	662	31.3	468	38.1	191	22.4	5	*
Pneumonia and Influenza	664	31.4	413	33.6	248	29.1	6	1.0
Diabetes Mellitus	574	27.2	305	24.8	267	31.4	-	-
Chronic Liver Disease and Cirrhosis	360	17.0	179	14.6	176	20.7	-	-
Homicide	696	33.0	107	8.7	585	68.7	125	20.9
Suicide	238	11.3	158	12.8	79	9.3	19	3.2
Atherosclerosis	111	5.3	81	6.6	30	3.5	-	-
AIDS	294	13.9	67	5.4	226	26.5	3	*

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Wexford County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	26,360	Total Live Births:	408	Total Deaths:	242
Rank Among Counties:	49	Teenage Mothers:	42	Infant Deaths:	3
Per Square Mile:	46.6	Low Weight Births:	27	Neonatal Deaths:	1
		First Births:	133	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		**DIVORCE**			
Marriages:	263	Divorces:	168		
Marriage Rate:	20.0	Divorce Rate:	12.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	408	15.5	405	15.5	-	-	3	*

	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	102.9	42	103.7	-	-	-	-
Low Weight	27	66.2	27	66.7	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	63	154.4	62	153.1	-	-	1	*
Prenatal Care Began in 1st Trimester	313	767.2	311	767.9	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	1	*	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	242	116	126	241	115	126	-	-	-	1	1	-
Mortality Rate	9.2	9.0	9.3	9.2	9.1	9.4	-	-	-	*	*	-

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	1	-	3	2	3	8	13	35	174	-
White Male	1	-	-	-	-	2	2	1	6	9	16	78	-
White Female	2	-	-	1	-	-	-	2	2	4	19	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	242	918.1	241	924.8	-	-	1	*
Diseases of the Heart	82	311.1	82	314.7	-	-	-	-
Malignant Neoplasms	50	189.7	50	191.9	-	-	-	-
Cerebrovascular Diseases	20	75.9	20	76.7	-	-	-	-
Accidents and Adverse Effects	9	34.1	8	30.7	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	26.6	7	26.9	-	-	-	-
Pneumonia and Influenza	15	56.9	15	57.6	-	-	-	-
Diabetes Mellitus	11	41.7	11	42.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

NATALITY

SECTION I

NATALITY

KEY TRENDS

Demographic Between 1900 and 1992, the number of total births (live births and fetal deaths) has varied considerably. The general trend has been increasing numbers of total births from 1900 through 1957, declining numbers through 1976 and fairly stable numbers until 1989. During 1989 through 1992 there were more total births each year in Michigan than had been born to Michigan residents since 1971. There was a 3.8 percent drop in the number of total births between 1991 and 1992.

In the last twenty years fertility rates for white and black women decreased with the fertility rates for white women reaching a low level by about 1975 and for black women by about 1985. Fertility rates for white women have remained fairly stable since 1975 while rates for black women have risen since 1985. During this time period there has been an increase in the percent of births to minority race populations from 18.3 percent to 22.5 percent of the births.

Since 1980 birth rates have fluctuated from a low in 1983 of 31.3 births per 1,000 white women 15 to 19 years of age to a high of 43.2 in 1990. Rates for black teenage women have fluctuated from a low of 80.5 in 1983 to a high of 135.6 in 1989.

An Overview, 1992

Total Resident Births (live births & fetal deaths)	144,582
Total Resident Live Births	143,827
Resident Live Births per Day	394
Total Resident Fetal Deaths	755
Resident Fetal Deaths per Day	2
Crude Birth Rate	15.5
Fertility Rate	64.9
Fetal Death Ratio	5.2
First Births (Percent of Total Live Births)	39.1
Median Birth Weight in Grams (Live Births)	3,377
Median Birth Weight in Grams (Fetal Deaths)	907.3
Low Weight Live Births	10,829
Low Weight Birth Ratio	75.3
Median Age of Mother (Live Births)	26
Median Age of Mother (Fetal Deaths)	26
Live Births with Congenital Anomalies	2,108
Congenital Anomalies per 10,000 Live Births	146.6
Live Births with No Prenatal Care	2,102
No Prenatal Care Ratio	14.6
Home Births	899
Live Born Sets of Twins	1,882
Live Born Sets of Triplets	45
Live Born Multiple Births of Four or More	2
Male Live Births per 100 Female Live Births	1.1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Prenatal Care A national goal is to increase to at least 90 percent the proportion of pregnant women who initiate prenatal care in the first trimester of pregnancy by the year 2000. In Michigan, the percentage of mothers who initiated care early increased from 69 percent in 1970 to a peak of 81 percent in 1985 and was about 79 percent in 1992. The highest percentages of mothers who initiated care early occurred among white and Asian and Pacific Islander mothers and mothers of Arab ancestry (78 to 83 percent). The lowest percentages occurred among black, American Indian and mothers of Hispanic ancestry.

Birth Outcome A national goal is to have the percent of infants with low birth weight be no more than 5 percent overall and 9 percent among infants born to black mothers by the year 2000. The low birth weight percentage in Michigan declined from 8.0

percent in 1966 to a low of 6.8 percent in 1985. It increased to 7.5 percent in 1992. The percent for white mothers decreased from 6.6 in 1970 to 5.6 in 1992, while the percent for black mothers rose from 14.3 in 1970 to 14.9 in 1992. Of more concern is the percent of births with extremely low birth weight under 750 grams where about 3/4 of the live births will die within one year, usually in the first day of life. While 0.3 to 0.6 percent of the infants born to white, American Indian, Asian and Pacific Islander mothers and mothers of Arab and Hispanic ancestry had extremely low birth weight in 1992, 1.4 percent of the live births to black mothers had extremely low birth weight.

Tobacco Use A national goal is to reduce tobacco use by pregnant women to less than 10 percent of the births by the year 2000. In 1992 20.6 percent of the pregnant Michigan women used tobacco during their pregnancy.

Tobacco use during pregnancy was highest among American Indian mothers (41.2 percent). Less than 7 percent of the Asian and Pacific Islander mothers and mothers of Arab ancestry smoked. About 13 percent of the mothers of Hispanic ancestry smoked, while 19 and 21 percent of the black and white mothers smoked, respectively.

LIVE BIRTHS

Michigan Trend The smallest number of live births officially recorded in this century was 43,221 in 1901. The actual number of live births was undoubtedly higher. Because of the method of recording, many live births were probably not recorded.

Live births generally increased from 43,699 in 1900 to 208,488 in the peak year of 1957 with major declines occurring during the first years of the Great Depression and the Second World War (Figure 1.1 and Table 1.1). Between 1957 and 1976, live births decreased by 37.0 percent to 131,378, the lowest total since 1945. Between 1977 and 1988 the number of births fluctuated between a high of 145,162 live births in 1980 and a low of 133,026 in 1983. There was a sharp increase in the number of live births in 1989 and 1990. The number of infants declined in 1992 to 143,827.

United States The national pattern was similar to that observed in Michigan. For 1992, the provisional figure was 4,084,000, a decrease of 0.7 from 1991.

Crude Birth Rates Another view of the historic pattern in live births may be obtained through examination of changes in the crude birth rate. In this century the crude birth rate in Michigan has ranged from a low of 14.4 per 1,000 residents in 1976 to a high of 27.4 in 1956 (Figure 1.2). Between 1976 and 1988, the rate fluctuated between the high of 15.7 in 1980

Table 1.1

Live Births and Crude Birth Rates
Michigan and United States Residents
Selected Years, 1900 - 1992

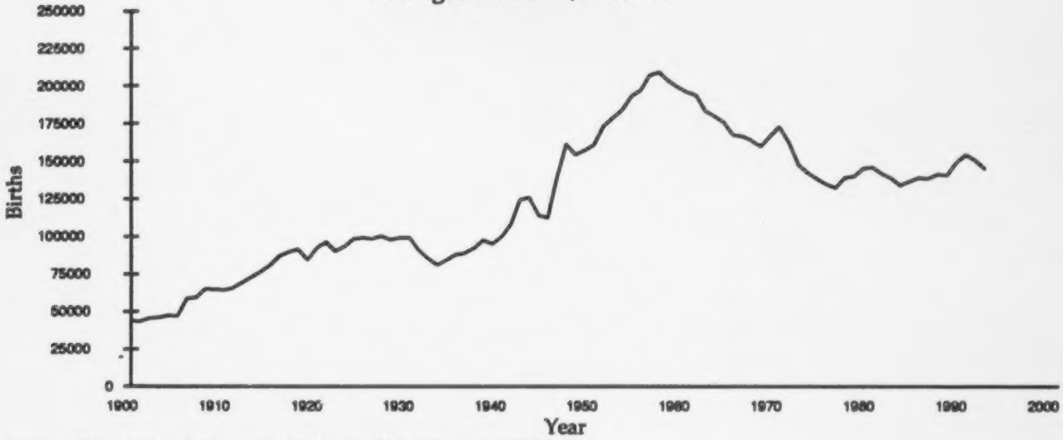
United States		Year	Michigan	
Number	Rate		Number	Rate
—	—	1900	43,699	18.1
2,618,000	21.3	1930	98,882	20.4
4,257,850	23.7	1960	195,056	24.9
3,731,386	18.4	1970	171,667	19.3
3,612,258	15.9	1980	145,162	15.7
3,629,238	15.8	1981	140,579	15.2
3,680,537	15.9	1982	137,950	15.0
3,638,933	15.5	1983	133,026	14.5
3,669,141	15.5	1984	135,782	15.0
3,760,561	15.8	1985	138,052	15.2
3,756,547	15.6	1986	137,626	15.1
3,809,394	15.7	1987	140,466	15.3
3,909,510	15.9	1988	139,635	15.2
4,040,958	16.4	1989	148,164	16.0
4,158,212	16.7	1990	153,080	16.5
4,110,907	16.3	1991	149,478	16.1
4,084,000Pr.	15.9Pr.	1992	143,827	15.5

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.1

Live Births

Michigan Residents, 1900-1992



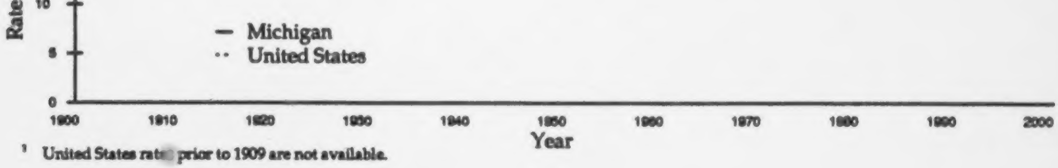
Source: Office of the State Registrar and Division for Health Statistics, MDPH

and a low of 14.5 in 1983. In 1989 through 1991 the crude birth rate was above 16 live births per 1,000 residents. In 1992 the rate declined to 15.5.

Figure 1.2

Live Birth Rates

Michigan Residents, 1900 - 1992 and United States[1] Residents, 1909 - 1992[2]



[1] United States rates prior to 1909 are not available.

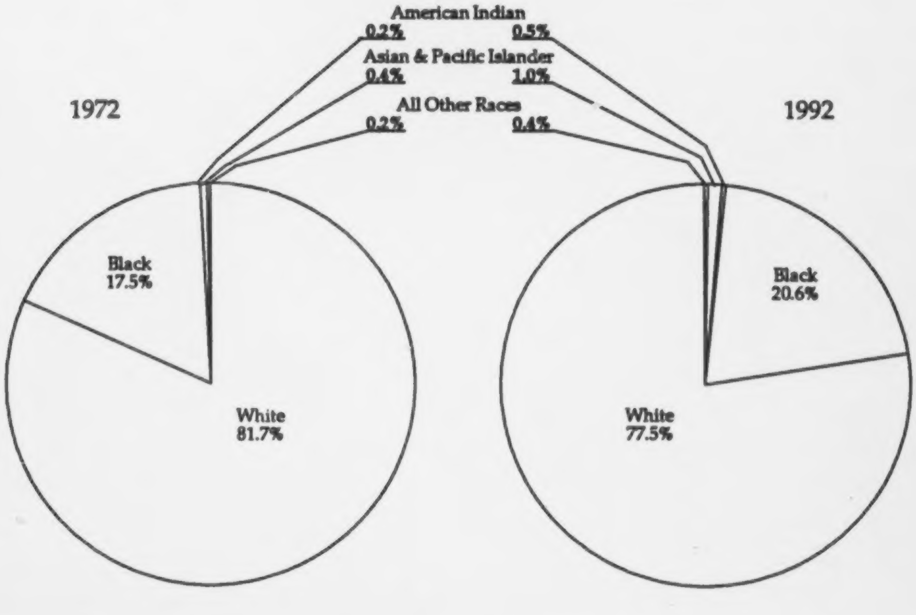
[2] United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE, RACE AND ANCESTRY

Racial Composition As part of the changing demographics in Michigan, the racial composition of women having live births in Michigan changed over the period 1972 through 1992 (Figure 1.3). Live births to white women declined from 81.7 percent of all live births in 1972 to 77.5 percent in 1992. The percentages of live births born to mothers of minority race groups increased from 18.3 to 22.5 percent during the twenty year period.

Figure 1.3
Live Births by Mother's Race or National Origin
Michigan Residents, 1972 and 1992



NOTE: In 1972 Korean race was included in all other races and Asian Indian race was included in white.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Mother's Age In 1992, 39.0 percent of all live births were to women less than 25 years of age (Table 1.2). Only 1.2 percent occurred to women over 39 years of age. The median age of Michigan mothers was 26 years. Black, American Indian and Hispanic mothers were younger (median: 23 or 24 years), while white, Asian and Pacific Islander and Arab mothers were older (median: 27 to 29 years).

Teenage Mothers Differences are reflected in the proportion of teenage births in each race or ancestry group. Although over half of the births to teenage women are to white mothers, only about 1 in 10 births to white mothers were born to a teenage women. Even lower proportions of Asian and Pacific Islander mothers and mothers of Arab ancestry were under age 20, about 1 in 24 and 1 in 17 respectively. About 1 in 4 births to black and American Indian mothers were born to teenage mothers and 1 in 5 births to mothers of Hispanic ancestry.

Table 1.2

Live Births and Percent Distribution by Age, Race and Ancestry of Mother

Michigan Residents, 1992

Age of Mother in Years	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 15	373	0.3	116	0.1	250	0.8	2	0.3	1	0.1	-	-	-	-	25	0.6
15 - 19	18,341	12.8	10,689	9.6	7,379	24.9	173	23.1	56	4.0	5	8.8	137	5.8	855	19.9
20 - 24	37,446	26.0	27,108	24.3	9,743	32.9	280	37.3	233	16.5	7	12.3	562	24.0	1,399	32.6
25 - 29	43,246	30.1	35,995	32.3	6,391	21.6	167	22.3	510	36.0	24	42.1	754	32.1	1,102	25.7
30 - 34	31,496	21.9	26,901	24.1	3,937	13.3	85	11.3	416	29.4	18	31.6	590	25.1	666	15.5
35 - 39	11,199	7.8	9,280	8.3	1,665	5.6	34	4.5	156	11.0	3	5.3	248	10.6	213	5.0
40 +	1,664	1.2	1,324	1.2	279	0.9	8	1.1	42	3.0	-	-	55	2.3	30	0.7
Not Stated	62	0.0	45	0.0	12	0.0	1	0.1	2	0.1	-	-	-	-	3	0.1
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0
Median Age at Last Birthday	26		27		23		23		29		27		28		24	

[1] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

FERTILITY

The fertility rate relates the number of live births to the female population of childbearing age, 15 through 44 years. Similarly, age-specific rates which relate the number of live births to the females in a specific age group provide more detail on the fertility of women in the age group.

Trends A comparison of fertility rates since 1900 for Michigan with those for the United States since 1930 is presented in Table 1.3. The crude birth rate changes discussed above understate the recent decline in fecundity for both regions. The fertility rate for Michigan in 1992 was 47.3 percent below the 1960 rate.

Total Fertility Figure 1.4 displays the changes in the total fertility rate between 1920 and 1992 for Michigan and the United States. (See also Table 4.4) The total fertility rate is a hypothetical measure of the number of live births that would occur to each 1,000 women during their reproductive life, if these women experienced the age-specific birth rates observed in a given year.

Table 1.3

Fertility Rates

Michigan and United States Residents

Selected Years, 1900 - 1992

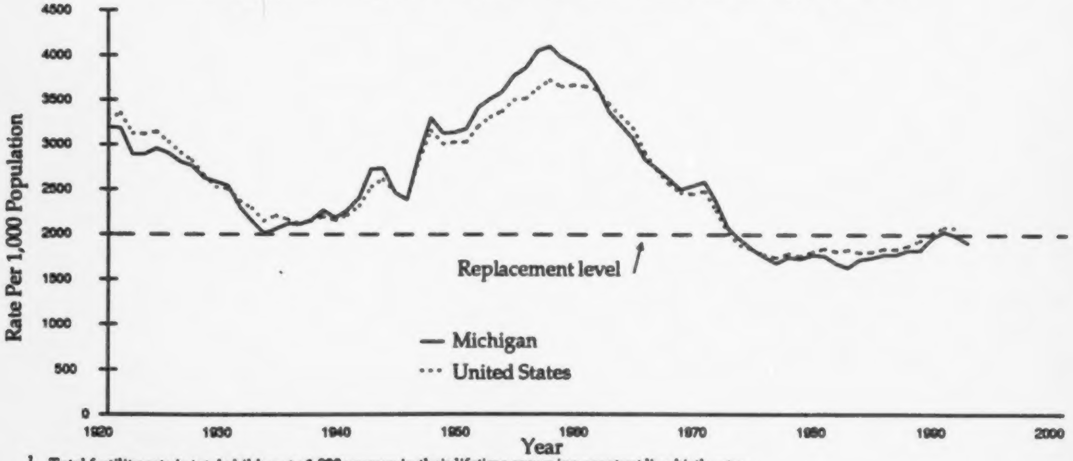
United States	Year	Michigan
—	1900	78.5
89.2	1930	87.6
118.0	1960	123.1
87.9	1970	91.7
68.4	1980	66.3
67.4	1981	63.2
67.3	1982	61.7
65.8	1983	59.3
65.4	1984	63.1
66.2	1985	63.8
65.4	1986	63.2
65.7	1987	64.3
67.2	1988	63.9
69.2	1989	67.9
70.9	1990	69.1
69.6	1991	67.5
69.3Pr.	1992	64.9

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.4

Total Fertility Rates[1]

Michigan Residents, 1920 - 1992 and United States Residents, 1920 - 1991



[1] Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Michigan's total fertility rate has generally paralleled that of the nation. The Michigan rate dropped from 3,195.5 in 1920 to 2,006.5 in 1933 and then increased between 1933 and 1957, reaching 4,100.0 in the latter year. Between 1957 and 1992 the total fertility rate in Michigan declined to a low of 1,632.5 in 1982 and increased to 1,910.0 in 1992. The rate was 2,073.0 in 1991 for the United States. The national rates have been higher than the Michigan rates since 1975.

In 1990, for the first time since 1973, Michigan and national total fertility rates were above 2,000. In 1991 and 1992 the Michigan total fertility rate was again below 2,000. A total fertility rate of over 2,000 is necessary for replacement of the parents, since not all women survive the reproductive years nor would all children survive to adulthood. If the total fertility rate falls below 2,000 for a long period, a natural decrease in population will eventually occur. It should be noted that although the total fertility rate has almost always been below 2,000 since 1973, the rate of natural increase for Michigan remains positive. Over the period 1973 through 1992, there were 1,267,597 persons added to the population of Michigan through the excess of live births over deaths.

Table 1.4 provides a comparison between fertility rates for white and black persons in Michigan for the period since 1970.

The fertility rate for black persons was 40.5 percent above the rate for white persons in 1970, fell sharply to 10.8 percent higher in 1985 and increased to 42.1 percent higher in 1992. Since 1970 the fertility rate for black persons has declined 29.8 percent compared with a 30.6 percent drop for white persons.

The fertility rates for white women declined to its lowest level of 60.7 in 1976, then rose to a high of 65.3 in 1990. Similarly, rates for black women declined to 68.2 in 1983 and then increased to a high of 93.5 in 1990.

Table 1.4

Fertility Rates by Race of Mother

Michigan Residents, Selected Years, 1970 - 1992

Year	Fertility Rate	
	White	Black
1970	87.9	123.5
1975	62.6	89.5
1980	64.2	78.3
1985	62.8	69.6
1990	65.3	93.5
1991	62.9	92.3
1992	61.0	86.7
Percent Change 1970-1992	-30.6	-29.8

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE-SPECIFIC LIVE BIRTH RATES

All Women Figure 1.5 displays age-specific live birth rates for the period 1970-1992. Live birth rates in all age groups dropped between 1970 and 1976. For women under 20 years of age the rate continued to decline throughout the years 1976-1983 reaching a low of 38.6 in 1983. The rate increased after 1983 to a high of 60.0 in 1990 then declined to 54.4 in 1992.

After declining between 1970 and 1976, live birth rates for women between 20-24 and 25-29 years of age remained stable until 1980. The rates decreased to low levels in 1983 and increased to relatively high levels in 1990. These rates are decreasing again.

For women in the age groups 30-34 and 35-39 live birth rates decreased between 1970 and 1976, then increased by 55.2 and 81.6 percent, respectively, by 1992.

Black and White Women Figures 1.6 and 1.7 present the trends in age-specific rates for white and black women respectively for the period 1980-1992. Rates for black women under age 25 were above those for white women during these years. The live birth rates for white and black women aged 25 and over were similar.

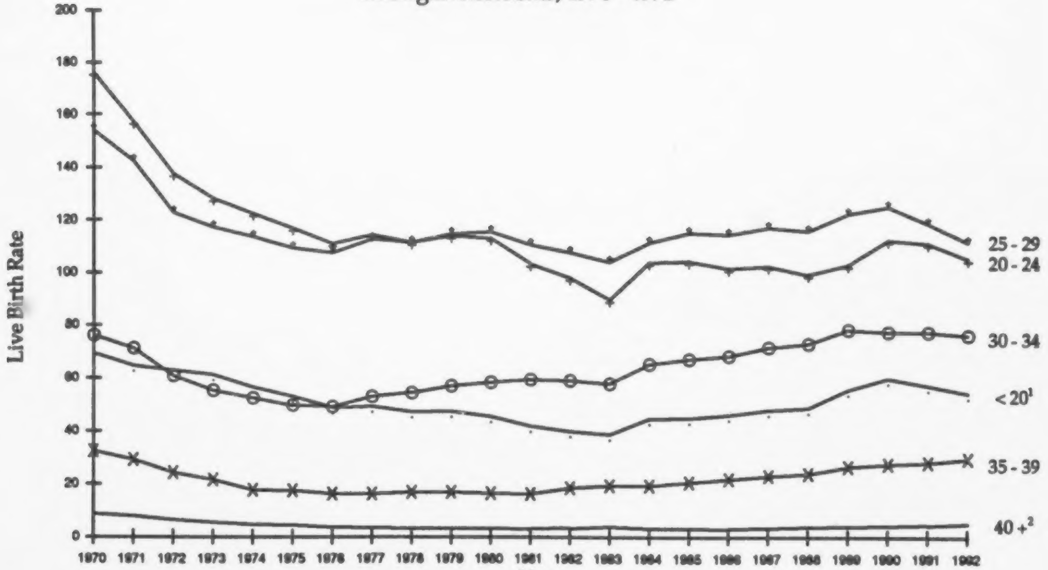
Between 1980 and 1992 rates for white and black females increased for all age groups, except for white females ages 20 to 29.

Teenagers For women under age 20, birth rates decreased for both race groups through 1983, increased from 1983 through 1989 for black teenagers and from 1983 through 1990 for white teenage women. Then the rates decreased in 1991 and 1992.

Figure 1.5

Age-Specific Live Birth Rates

Michigan Residents, 1970 - 1992

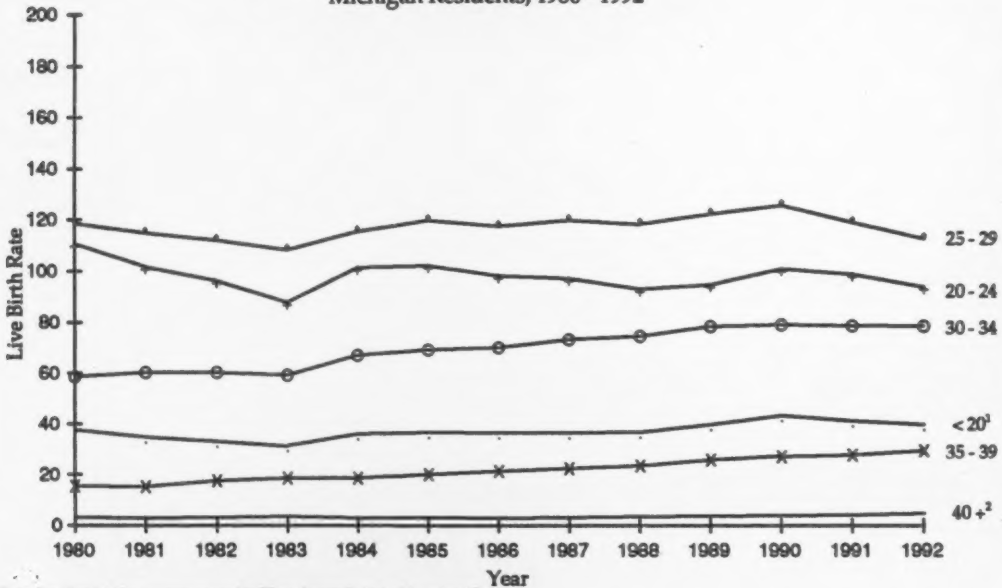


[1] Based on live births to women under 20 and population of females 15-19.

[2] Based on live births to women 40 and over and population of females 40-44.

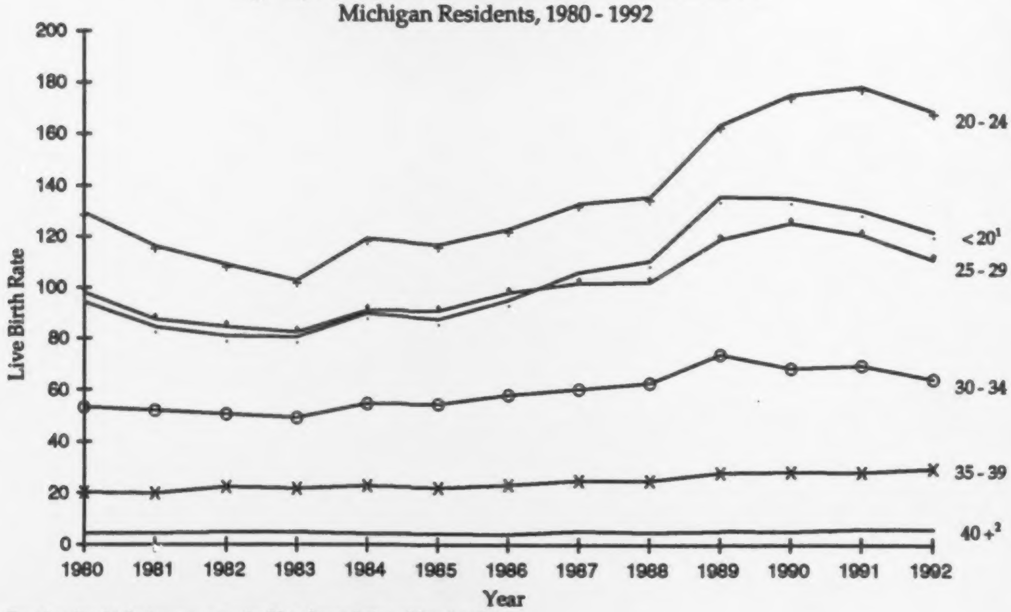
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.6
Age-Specific Live Birth Rates to White Mothers
Michigan Residents, 1980 - 1992



[1] Based on live births to women under 20 and population of females 15-19.
[2] Based on live births to women 40 and over and population of females 40-44.
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.7
Age-Specific Live Birth Rates to Black Mothers
Michigan Residents, 1980 - 1992



[1] Based on live births to women under 20 and population of females 15-19.
[2] Based on live births to women 40 and over and population of females 40-44.
Source: Office of the State Registrar and Division for Health Statistics, MDPH

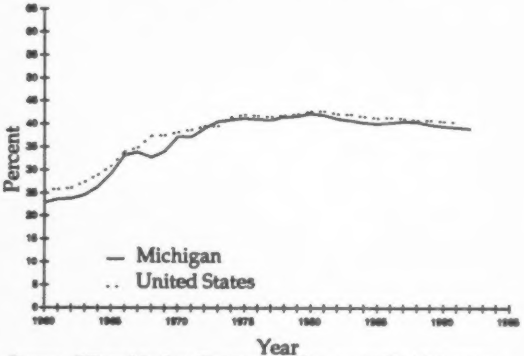
BIRTH ORDER

The percent of live births which were first-order births is displayed in Figure 1.8 for Michigan and the United States for the period 1960 to 1992. Between 1960 and 1980, the percent of first-order births increased from 22.9 to 42.4 in Michigan. Then the percentage generally decreased to 39.1 in 1992, the lowest proportion since 1972.

Figure 1.8

First Births as a Percentage of All Live Births

Michigan Residents, 1960 - 1992 and
United States Residents, 1960 - 1991



Source: Office of the State Registrar and Division for Health Statistics, MDPH

INTERPREGNANCY TIME PERIOD

In 1992 women having live births whose most recent prior termination was a fetal death had a median time span of 1 year and 10 months between their previous termination and a live birth (Table 1.5). This compares to a median of 2 years 7 months for women having prior live births. A spacing of less than one year was observed for 11.9 percent of all women reporting their most recent prior pregnancy was a fetal death, but only 2.3 percent of all women reporting their most recent prior pregnancy was a live birth.

Table 1.5

Live Births to Women Reporting Prior Pregnancy Terminations[1] by Time Span Between Last and Current Termination and by Whether Prior Termination Resulted in a Live Birth or a Fetal Death[2]

Michigan Residents, 1992[3]

Time Span In Years	Total		Prior Fetal Death		Prior Live Birth	
	Number	%	Number	%	Number	%
Total	96,021	100.0	23,549	100.0	72,472	100.0
< 1	4,479	4.7	2,814	11.9	1,665	2.3
1 < 2	31,673	33.0	9,606	40.8	22,067	30.4
2 < 3	23,549	24.5	3,851	16.4	19,698	27.2
3 < 5	19,759	20.6	3,266	13.9	16,493	22.8
5 +	16,561	17.2	4,012	17.0	12,549	17.3
Median Time Span	2yrs., 5mos.		1yrs., 10mos.		2yrs., 7mos.	

[1] Terminations with time spans of zero years (i.e., second or later births in plural deliveries) and terminations with unknown time spans are excluded.

[2] Fetal death as defined for the pregnancy history on the birth record is a fetal death of any gestational age.

[3] The methodology for calculating interpregnancy time span was altered slightly in 1984. Hence, median time spans and percentages are not comparable to statistics published in prior years.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

PRENATAL CARE

Trend Pregnant women are encouraged to initiate prenatal care during the first trimester and to receive care on a regular, prescribed basis until delivery occurs. The percentage of women delivering live born infants who initially obtained prenatal care in the first trimester of pregnancy increased steadily between 1970, when the figure was 69.0, and 1985 when it peaked at 81.0 (Figure 1.9). Since then it has fluctuated between 78.0 and 80.0. It was 78.9 percent in 1992.

Race, Ancestry and Age The proportion of live births to women receiving early prenatal care varied considerably by race, ancestry and age of mother (Table 1.6). In 1992, 83.2 percent of infants born to white women were born to mothers who began their prenatal care in the first trimester. Similar percentages of Asian and Pacific Islander mothers and mothers of Arab ancestry initiated care early, 77.7 and 82.9 percent respectively. Lower percentages of black and American Indian mothers and mothers of Hispanic ancestry initiated care early, 63.3 to 67.9 percent.

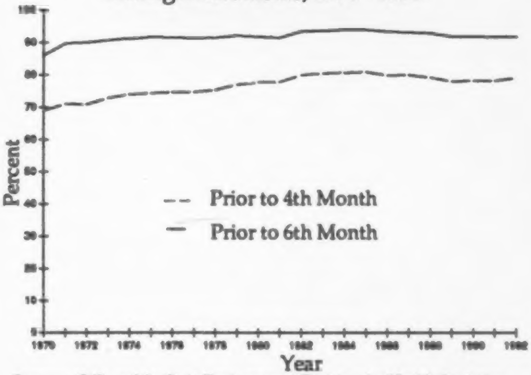
Over 80 percent of live births to women aged 25 or over were to women who sought care promptly. The proportion fell to 42.4 percent for women under 15 years. About six in ten (59.9 percent) infants born to mothers 15-19 years of age were to mothers who received care early.

Similar patterns in the proportion of mothers initiating care early by age of mother are evident for the race and ancestry groups. However, the proportions were generally highest in each age group for white mothers

Figure 1.9

Percent of Women Having Live Births Who Received Care Prior to the 4th Month and 6th Month of Pregnancy

Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 1.6

Numbers and Percents [1] of Live Births with Prenatal Care Beginning in the First Trimester by Age, Race and Ancestry of Mother

Michigan Residents, 1992

Age of Mother in Years	Race[2]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 15	158	42.4	61	52.6	95	38.0	1	50.0	-	-	-	-	-	-	8	32.0
15 - 19	10,981	59.9	6,817	63.8	4,020	54.5	101	58.4	28	50.0	2	40.0	102	74.5	468	54.7
20 - 24	27,357	73.1	20,831	76.8	6,133	62.9	187	66.8	164	70.4	6	85.7	449	79.9	919	65.7
25 - 29	36,738	85.0	31,661	88.0	4,414	69.1	123	73.7	398	78.0	20	83.3	638	84.6	813	73.8
30 - 34	27,333	86.8	24,019	89.3	2,782	70.7	65	76.5	356	85.6	17	94.4	497	84.2	518	77.8
35 - 39	9,500	84.8	8,170	88.0	1,143	68.6	24	70.6	124	79.5	2	66.7	212	85.5	168	78.9
40 +	1,335	80.2	1,116	84.3	176	63.1	5	62.5	30	71.4	-	-	46	83.6	20	66.7
Not Stated	45	72.6	36	80.0	7	58.3	1	100.0	-	-	-	-	-	-	2	66.7
Total	113,447	78.9	92,711	83.2	18,770	63.3	507	67.6	1,100	77.7	47	82.5	1,944	82.9	2,916	67.9

[1] Percent denominators obtained from column numbers in Table 1.2

[2] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

and mothers of Arab ancestry, next highest for Asian and Pacific Islander mothers. Lower proportions of American Indian mothers, mothers of Hispanic ancestry and black mothers initiated care early in each age group.

No Care In 1992, 2,102 resident live births, or 14.6 of every 1,000, occurred with the mother having had no prenatal care (Table 1.7). This figure includes only those where it was specified on the birth record that the mother received no prenatal care. The comparative statistics were 6.3 in 1985 and 22.6 in 1970.

Those who received no prenatal care were for the most part younger mothers (median age of 23). Also, the lack of prenatal care was disproportionately high among black mothers (41.3 per 1,000 live births).

Adequacy of Care A measure of the quality of care has been developed by Dr. D. W. Kessner which combines information on the month prenatal care began, the gestational age at birth and the number of prenatal visits (see Technical Notes). Adequate prenatal care was obtained by mothers of 73.1 percent of the live births (Table 1.8). The proportions of live births to white mothers and mothers of Arab ancestry who received adequate care (78.1 and 77.4 percent) were higher than the corresponding proportions for black and American Indian mothers (54.8 and 60.7 percent) and mothers of Hispanic ancestry (61.1 percent).

Inadequate care was received by the mothers of 9.2 percent of all live births. The proportions of live births to mothers who received inadequate care were 6.5 percent for white mothers, 8.4 to 13.5 percent for Asian and Pacific Islander mothers, American Indian mothers and mothers of Arab and Hispanic ancestry and 19.2 percent for black mothers.

Table 1.7

Live Births and Birth Ratios with No Prenatal Care by Age and Race of Mother

Michigan Residents, 1992

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]
< 15	32	85.8	10	86.2	22	88.0	-	-	-	-
15 - 19	520	28.4	191	17.9	322	43.6	4	*	3	*
20 - 24	629	16.8	265	9.8	356	36.5	7	13.5	1	*
25 - 29	459	10.6	191	5.3	261	40.8	5	*	2	*
30 - 34	305	9.7	130	4.8	169	42.9	4	*	2	*
35 - 39	128	11.4	42	4.5	83	49.8	1	*	2	*
40 +	28	16.8	10	7.6	17	60.9	1	*	-	-
Not Stated	1	*	-	-	1	*	-	-	-	-
Total	2,102	14.6	839	7.5	1,231	41.5	22	9.9	10	20.4
Median Age at Last Birthday	23		23		23		25		27	

[1] Ratio denominators obtained from column numbers in Table 1.2.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Although the mothers of 78.9 percent of all live births received prenatal care during the first trimester, only 73.1 percent received adequate care as defined by the Kessner Index. Overall, this means that of the mothers who initiated prenatal care most promptly, 7.3 percent (8,297 women) did not receive the minimum number of visits they should have received (Tables 1.6 and 1.8).

Considered as a proportion of the live births to mothers who did not receive adequate care (38,677 women), 21.5 percent of the live births to mothers not receiving adequate care were to mothers who initiated care within the recommended first trimester, but did not continue to receive the appropriate minimum number of prenatal care visits.

Table 1.8

Numbers and Percents of Live Births by Level of Prenatal Care, Race and Ancestry of Mother

Michigan Residents, 1992

Level of Prenatal Care (Kessner Index[1])	Race[2]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adequate	105,150	73.1	87,103	78.1	16,251	54.8	455	60.7	1,026	72.5	40	70.2	1,816	77.4	2,621	61.1
Intermediate	24,788	17.2	16,676	15.0	7,572	25.5	211	28.1	241	17.0	14	24.6	324	13.8	1,071	24.9
Inadequate	13,301	9.2	7,266	6.5	5,682	19.2	82	10.9	139	9.8	3	5.3	198	8.4	581	13.5
Unknown	588	0.4	413	0.4	151	0.5	2	0.3	10	0.7	-	-	8	0.3	20	0.5
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

[1] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care.)

[2] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

BIRTH WEIGHT

The mean weight for all live births was 3,342.0 grams or approximately 7 pounds 6 ounces (Table 1.9). The median weight was 3,377 grams or about 7 pounds 7 ounces. The median birth weight was lowest for infants born to black mothers, highest for white and American Indian mothers. The medians were somewhat lower for mothers of Arab and Hispanic ancestry. The median birth weight for infants born to Asian and Pacific Islander mothers was about 200 and 170 grams lower than the medians for infants born to white and American Indian mothers and 113 grams higher than the median for infants born to black mothers.

Infants born to black mothers had a higher proportion of birth weights with extremely low birth weight below 750 grams (1.4 percent). Other race and ancestry groups had from 0.3 to 0.6 percent of the births below 750 grams. Infants born with this extremely low birth weight have very high mortality rates (over 75 percent mortality).

Table 1.9

Numbers and Percents of Live Births by Birth Weight, Race and Ancestry of Mother

Michigan Residents, 1992

Weight at Birth in Grams	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 750	817	0.6	380	0.3	424	1.4	3	0.4	8	0.6	-	-	10	0.4	15	0.3
750 - 1,499	1,381	1.0	758	0.7	601	2.0	4	0.5	11	0.8	2	3.5	15	0.6	25	0.6
1,500 - 2,499[2]	8,631	6.0	5,103	4.6	3,398	11.5	39	5.2	65	4.6	2	3.5	98	4.2	202	4.7
2,500 +	132,779	92.3	105,057	94.3	25,182	84.9	702	93.6	1,331	94.0	53	93.0	2,218	94.5	4,045	94.2
Not Stated	219	0.2	160	0.1	51	0.2	2	0.3	1	0.1	-	-	5	0.2	6	0.1
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0
Mean Weight	3,342		3,417		3,063		3,421		3,262		3,434		3,338		3,360	
Median Weight	3,377		3,459		3,147		3,430		3,260		3,530		3,345		3,374	

[1] Live births with race unknown are in the "Total" column only.

[2] In order to conform to national standards, the definition of low birthweight was changed in 1984 to less than 2,500 grams.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

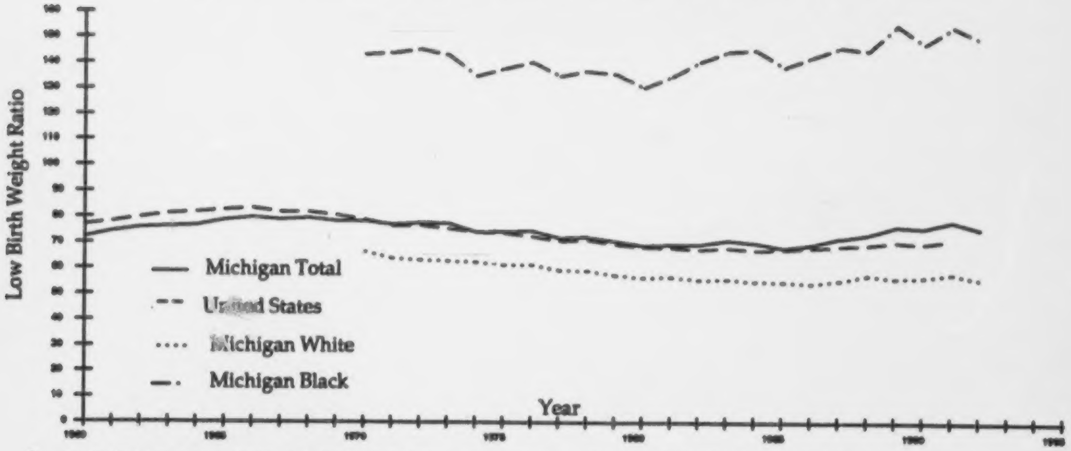
Low Birth Weight A subgroup of major importance when analyzing historical birth weight trends is the category of infants weighing less than 2,500 grams (approximately 5 pounds 8 ounces or less) at birth. Such infants have historically experienced higher mortality in their first year of life than heavier infants.

Figure 1.10 displays the percent of low birth weight infants born to Michigan and the United States residents over the last thirty-three years. In 1960 7.2 percent of the live births in Michigan had low birth weight. Between 1960 and 1966 the percentage increased, reaching a high for the 33 year period (8.0). The percentage generally declined until 1985 when the percent was 6.8, the lowest rate since 1960. It rose to 7.5 in 1992. The pattern for the United States was similar between 1970 and 1985. By 1991 the low birth weight percentage for the nation had increased to 7.1 percent.

Figure 1.10

Low Birth Weight[1] Ratios

Michigan Residents by Race, 1960 - 1992 and United States Residents, 1960 - 1991



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[1] Prior to 1984, low birth weight was defined as 2,500 grams or less. Starting with year 1984, low birth weight is defined as less than 2,500 grams in order to conform to national standards.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

The low birth weight percentage for infants of black mothers was 14.9 percent compared with 5.2 to 6.1 percent for infants born to mothers of other races and ancestry groups (Table 1.10).

The low birth weight percent varied by adequacy of prenatal care as indicated by the Kessner Index. For the race and ancestry groups, the low birth weight percentages were generally 1.5 and 2.3 times higher for infants born to mothers with inadequate care than to mothers with adequate prenatal care. The ratios were generally 1.2 and 1.6 times higher for infants born to women with intermediate care than for women with adequate care.

At birth, 14.9 percent of the infants born to black women weighed less than 2,500 grams. Of infants born to black women with adequate care, a lower percentage (12.8) weighed less than 2,500 grams. The low weight ratio for infants born to black women with adequate care was higher than the ratio for infants born to women of other race and ancestry groups at any level of prenatal care. The low birth weight ratio was 2.0 to 2.8 times higher for infants born to black women with adequate care than for corresponding women of other race and ancestry groups.

Table 1.10
Low Weight[1] Live Births and Low Birth Weight Percentages[2] by Level of Prenatal Care, Race and Ancestry of Mother
Michigan Residents, 1992

Level of Prenatal Care (Kessner Index[3])	Race[4]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adequate	6,392	6.1	4,218	4.8	2,073	12.8	22	4.8	64	6.2	3	*	91	5.0	119	4.5
Intermediate	2,378	9.6	1,191	7.1	1,154	15.2	16	7.6	11	4.6	1	*	16	4.9	67	6.3
Inadequate	2,004	15.1	806	11.1	1,168	20.6	8	9.8	8	5.8	-	-	15	7.6	54	9.3
Unknown	55	9.4	26	6.3	28	18.5	-	-	1	*	-	-	1	*	2	*
Total	10,829	7.5	6,241	5.6	4,423	14.9	46	6.1	84	5.9	4	*	123	5.2	242	5.6

[1] Less than 2,500 grams.

[2] Percent denominators obtained from column numbers in Table 1.8.

[3] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

[4] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

CONGENITAL ANOMALIES

One or more congenital anomalies were reported on the birth certificate for 2,108 of the 143,827 resident live births in 1992 (Table 1.11). This translates to a rate of 146.6 per 10,000 live births.

The method of reporting congenital anomalies on the birth record was altered with the 1989 birth certificate. The 1989 and later congenital anomalies rates obtained in check-box format are not comparable to rates obtained in previous years by writing in blank spaces. Particularly, any increase in the overall congenital anomalies rate or the rate of specific types of anomalies compared to previous years can not automatically be considered an increase in the proportion of congenital anomalies occurring. It is most likely that such an increase is a consequence of the more complete reporting of congenital anomalies.

While the check-box reporting format may help reduce the level of underreporting of congenital anomalies, the frequency of reporting of specific anomalies is affected by the reporting schedule. Many conditions may not be apparent at the time the birth certificate is completed and filed. A more complete reporting of congenital anomalies is provided by the Birth Defects Registry in the Office of the State Registrar and Division for Health Statistics.

The congenital anomaly rate of 160.8 per 10,000 live births to white mothers was 69.6 percent higher than the rate of 94.8 for live births to black mothers and 27.6 percent higher than the rate of 126.0 for live births to mothers of races other than black or white.

The rates for all races combined varied with the age of the mother. The lowest rates were usually experienced by mothers 20 - 24 years of age. Rates rose with mother's age.

Table 1.11

Live Births with Congenital Anomalies Reported and Congenital Anomaly Rates[1]
by Age and Race of Mother

Michigan Residents, 1992

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Unknown	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
< 15	2	*	2	*	-	-	-	-	-	-
15 - 19	240	130.9	165	154.4	72	97.6	1	*	2	*
20 - 24	487	130.1	389	143.5	90	92.4	8	153.8	-	-
25 - 29	639	147.8	567	157.5	61	95.4	8	114.1	3	*
30 - 34	512	162.6	461	171.4	42	106.7	7	134.9	2	*
35 - 39	201	179.5	184	198.3	14	84.1	3	*	-	-
40 +	26	156.3	24	181.3	1	*	1	*	-	-
Not Stated	1	*	-	-	1	*	-	-	-	-
Total	2,108	146.6	1,792	160.8	281	94.8	28	126.0	11	224.5
Median Age at Last Birthday	27		27		23		27		27	

[1] Number of live births with congenital anomalies reported per 10,000 live births.

[2] Rate denominator obtained from column numbers in Table 1.2.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MEDICAL FACTORS ASSOCIATED WITH DELIVERY AND/OR LABOR

Complications of Pregnancy There were 40,192 deliveries (27.9 percent) reported with one or more complications of labor and/or delivery in 1992 (Table 1.12). Among the most commonly reported complications were meconium, moderate/heavy (8,276 cases); breech/malpresentation of fetus (6,115 cases); fetal distress (6,096 cases); dysfunctional labor (5,153) and premature rupture of membranes (5,093 cases).

The proportions of live births for which there was at least one complication were relatively similar for women of different races and ancestry groups (Table 1.12). The types of complications which were most common were also very similar among mothers of different race and ancestry groups, although the exact ordering by frequency of occurrence varied somewhat.

Table 1.12
Numbers and Percents of Live Births by Complications of Labor/Delivery, Race and Ancestry of Mother

Michigan Residents, 1992

Complications of Labor/Delivery	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Meconium, moderate/heavy	8,276	5.8	5,803	5.2	2,324	7.8	44	5.9	81	5.7	2	3.5	110	4.7	270	6.3
Breech/malpresentation	6,115	4.3	5,132	4.6	872	2.9	40	5.3	50	3.5	3	5.3	82	3.5	170	4.0
Fetal distress	6,096	4.2	4,657	4.2	1,340	4.5	31	4.1	44	3.1	2	3.5	78	3.3	121	2.8
Dysfunctional labor	5,153	3.6	4,304	3.9	717	2.4	34	4.5	59	4.2	4	7.0	78	3.3	172	4.0
Premature rupture of membranes (>12 hours)	5,093	3.5	4,038	3.6	932	3.1	39	5.2	67	4.7	2	3.5	63	2.7	170	4.0
Cephalopelvic disproportion	4,000	2.8	3,540	3.2	391	1.3	24	3.2	30	2.1	-	-	37	1.6	130	3.0
Precipitate labor (<3 hours)	2,982	2.1	2,426	2.2	490	1.7	20	2.7	34	2.4	3	5.3	47	2.0	91	2.1
At least one complication	40,192	27.9	32,007	28.7	7,383	24.9	243	32.4	404	28.5	17	29.8	536	22.8	1,217	28.3
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

[1] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Behavioral Risk Factors The mother smoked while pregnant for 20.6 percent (29,654) of the live births in 1992 (Table 1.13). These data are consistent with statewide PRAMS sample survey data. The reported percentage of live births whose mothers smoked while pregnant was highest for American Indian mothers (41.2 percent), was lower and relatively similar for white and black mothers (21.2 and 18.9 percent, respectively). Mothers of Hispanic ancestry were reported to smoke less during pregnancy than white or black mothers (13.1 percent). Asian and Pacific Islander mothers and mothers of Arab ancestry had the lowest percentages of reported smoking during their pregnancy.

Only 3,515 (2.4 percent) of the birth certificates indicated the mother drank alcohol while pregnant.

Based on other studies it is generally believed that reported numbers of mothers who drank while pregnant as obtained from certificates of live birth underreport the frequency of this risk factor.

A weight gain during pregnancy of less than sixteen pounds was reported for mothers of 8.3 percent (11,933) of the live births. The percentage was higher for black mothers.

Table 1.13

Numbers and Percents of Live Births by Maternal Risk Factors, Race and Ancestry of Mother

Michigan Residents, 1992

Maternal Risk Factors	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mother smoked while pregnant	29,654	20.6	23,610	21.2	5,613	18.9	309	41.2	60	4.2	7	12.3	158	6.7	563	13.1
Weight gain less than 16 pounds while pregnant	11,933	8.3	7,855	7.0	3,849	13.0	78	10.4	112	7.9	4	7.0	165	7.0	420	9.8
Mother drank alcohol while pregnant	3,515	2.4	2,518	2.3	934	3.1	41	5.5	14	1.0	1	1.8	17	0.7	86	2.0
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

[1] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Medical Risk Factors For 20.4 percent (29,347) of the 143,827 resident live births occurring in 1992, the mother had at least one medically relevant risk factor (Table 1.14). The most commonly specified medical risk factor was pregnancy-related hypertension which occurred in mothers of 3.2 percent (4,565) of the live births. The next most common maternal medical risk factors were diabetes and anemia which occurred in mothers of 2.9 percent (4,169) and 1.6 percent (2,346) of the live births. Drug abuse was reported in 1.0 percent of all live births.

The most common maternal medical risk factors varied somewhat among race and ancestry groups. Pregnancy-related hypertension and diabetes were the most common risk factors for white mothers; drug abuse and anemia were the most common for black mothers; and diabetes was most common for American Indian, Asian and Pacific Islander mothers and mother of Arab and Hispanic ancestry.

Table 1.14

Numbers and Percents of Live Births by Medical Risk Factors, Race and Ancestry of Mother

Michigan Residents, 1992

Risk Factors	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Hypertension, pregnancy-associated	4,565	3.2	3,752	3.4	739	2.5	28	3.7	27	1.9	2	3.5	42	1.8	110	2.6
Diabetes	4,169	2.9	3,529	3.2	522	1.8	29	3.9	62	4.4	4	7.0	66	2.8	138	3.2
Anemia (Hct. 30/Hgb. 10)	2,346	1.6	1,422	1.3	886	3.0	10	1.3	18	1.3	1	1.8	23	1.0	96	2.2
Previous preterm or small-for-gestational age infant	2,081	1.4	1,654	1.5	398	1.3	13	1.7	4	0.3	4	7.0	22	0.9	49	1.1
Rh sensitive	1,652	1.1	1,581	1.4	59	0.2	3	0.4	1	0.1	3	5.3	33	1.4	25	0.6
Previous infant 4000+ grams	1,520	1.1	1,431	1.3	67	0.2	15	2.0	4	0.3	1	1.8	11	0.5	39	0.9
Drug abuse	1,498	1.0	555	0.5	923	3.1	14	1.9	2	0.1	1	1.8	1	0.0	35	0.8
At least one medical risk[2]	29,347	20.4	22,529	20.2	6,301	21.2	169	22.5	240	16.9	20	35.1	329	14.0	798	18.6
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

[1] Live births with race unknown are in the "Total" column only.

[2] Does not equal the sum of risk factors specified because mothers may have multiple risk factors.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Method of Delivery Vaginal delivery was the most common method of delivery in 1992, accounting for 77.9 percent of the live births (Table 1.15). A national goal is to have a vaginal delivery for at least 35 percent of the mothers with a pevious C-section by the year 2000. In 1992 about 23.5 percent of the mothers with a previous C-section had a vaginal delivery.

Primary C-sections were performed in 13.1 percent of the live births and repeat C-sections were performed in 8.2 percent of the live births. Lowering C-section rates to no more than 15 per 100 deliveries including no more than 12 primary C-sections is a national goal for the year 2000.

Black mothers and mothers of Arab and Hispanic ancestry had lower proportions of live births delivered by primary C-section. These groups either have achieved or are close to achieving the national goal for primary C-sections. White, American Indian and Asian and Pacific Islander mothers had somewhat higher proportions of live births delivered by primary C-section.

Table 1.15

Numbers and Percents of Live Births by Method of Delivery, Race and Ancestry of Mother

Michigan Residents, 1992

Risk Factors	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Procedures																
Vacuum	4,061	2.8	3,502	3.1	483	1.6	16	2.1	40	2.8	6	10.5	49	2.1	131	3.1
Forceps	3,881	2.7	3,346	3.0	438	1.5	10	1.3	53	3.7	4	7.0	61	2.6	106	2.5
Method																
Vaginal	108,416	75.4	82,937	74.4	23,380	78.8	571	76.1	1,115	78.7	44	77.2	1,858	79.2	3,248	75.7
Primary C-section	18,845	13.1	14,848	13.3	3,646	12.3	100	13.3	189	13.3	4	7.0	241	10.3	509	11.9
Repeat C-section	11,760	8.2	9,663	8.7	1,927	6.5	57	7.6	72	5.1	5	8.8	163	6.9	396	9.2
Vaginal birth after previous C-section	3,612	2.5	2,969	2.7	585	2.0	17	2.3	33	2.3	2	3.5	47	2.0	110	2.6
Unknown	1,198	0.8	1,045	0.9	118	0.4	5	0.7	7	0.5	2	3.5	37	1.6	30	0.7
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

[1] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Abnormal Conditions at Birth In 1992, 11,665 babies were born with at least one recorded abnormal condition at birth for 8.1 percent of the live births (Table 1.16). The highest rate for a specified abnormal condition was associated with live born infants who received assisted ventilation for less than 30 minutes (1.7 percent). The next two most frequent abnormal conditions were a five minute Apgar under 7 and hyaline membrane disease/RDS (Respiratory Distress Syndrome), respectively.

A low Apgar score at five minutes occurred for about 2.7 percent of the infants born to black mothers.

Table 1.16

Numbers and Percents of Live Births With Abnormal Conditions by Race and Ancestry of Mother

Michigan Residents, 1992

Abnormal Conditions	Race[1]												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Assisted ventilation <30 minutes	2,419	1.7	1,919	1.7	456	1.5	12	1.6	21	1.5	-	-	36	1.5	80	1.9
5 minute Apgar <7	2,258	1.6	1,416	1.3	800	2.7	12	1.6	23	1.6	2	*	21	0.9	50	1.2
Hyaline membrane disease/ RDS	1,689	1.2	1,216	1.1	444	1.5	5	*	9	0.6	3	*	34	1.4	40	0.9
Assisted ventilation >30 minutes	1,196	0.8	849	0.8	336	1.1	2	*	8	0.6	-	-	7	0.3	30	0.7
Meconium aspiration syndrome	582	0.4	318	0.3	254	0.9	2	*	5	*	-	-	9	0.4	25	0.6
At least one condition	11,665	8.1	8,989	8.1	2,472	8.3	49	6.5	85	6.0	11	19.3	191	8.1	339	7.9
Total Live Births	143,827		111,458		29,656		750		1,416		57		2,346		4,293	

[1] Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

PLACE OF OCCURRENCE

Of some confusion to persons not familiar with vital records data is the difference between occurrence and residence figures. Information on events to residents of Michigan that occur throughout the country and, in some instances, outside United States boundaries, is collected in order to obtain the full scope of activity for the state population.

Resident Births In 1992 1,713 Michigan resident live births occurred outside the state. Information on these events was forwarded to the state of Michigan for statistical purposes only. While only 1.2 percent of the total for the state was involved, statistics for the counties on Michigan's southern and northwestern borders would be strongly affected were this information not available.

Table 1.17 shows that births in the four border states and Canada comprise 90.7 percent of all resident live births that occurred out of state. Live births to Michigan residents occurred in 43 of the 50 states and in Canada in 1992.

Non-resident Births The number of nonresident live births that occurred in Michigan in 1992 was 454. Information about those events was shared with the appropriate states by the State of Michigan under specific confidentiality guidelines so they might have a complete statistical file on their residents. Infants born in Michigan to mothers from the four border states and Canada comprised 72.0 percent of these events, as shown in Table 1.17. There were live births in Michigan to residents of 28 states, Puerto Rico, the Virgin Islands and at least 4 foreign countries.

Table 1.17

Michigan Live Births

Occurring Outside Michigan to Michigan Residents by Place of Occurrence, and Occurring in Michigan to Non-Michigan Residents by Place of Residence, 1992

Geographic Area	Live Births To Residents Occurring Outside Michigan		Live Births To Non-residents Occurring in Michigan	
	Number	Percent	Number	Percent
Total	1,713	100.0	454	100.0
Ohio	967	56.5	45	9.9
Indiana	314	18.3	68	15.0
Wisconsin	256	14.9	175	38.5
Pennsylvania	17	1.0	-	-
Minnesota	14	0.8	4	0.9
Florida	13	0.8	16	3.5
Illinois	13	0.8	21	4.6
Texas	13	0.8	22	4.8
Other States	103	6.0	69	15.2
U.S. Territories	-	-	3	0.7
Canada	3	0.2	18	4.0
Other Countries	-	-	8	1.8
Unknown	-	-	5	1.1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

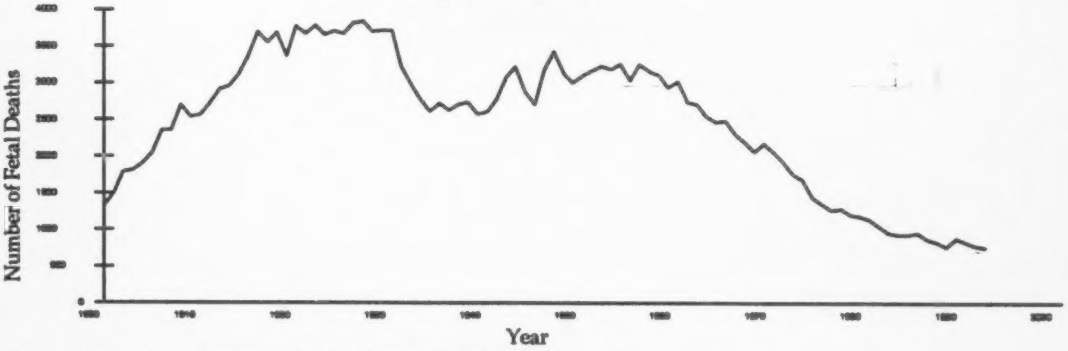
FETAL DEATHS

There were 1,325 fetal deaths reported in Michigan in 1900. The number of reported fetal deaths increased from 1900 through 1927, the peak year in this century, with 3,834 fetal deaths. The reported number of fetal deaths generally decreased in the 1930's, increased in the 1940's and decreased after 1950 (Figure 1.11 and Table 1.18).

In 1992 the number of resident fetal deaths was 755, the lowest number in the century.

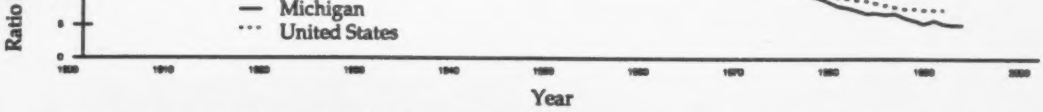
The fetal death ratio for Michigan has declined through most of the twentieth century (Figure 1.12 and Table 4.2). The ratio rose from 30.3 in 1900 to its peak of 43.5 fetal deaths per 1,000 live births in 1905. In 1922, Michigan's fetal death ratio was 42.0, marking a turning point, as fetal death ratios have generally declined since that year. The ratios in 1991 and 1992 were 5.2.

Figure 1.11
Fetal Deaths
Michigan Residents, 1900 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.12
Fetal Death Ratios
Michigan Residents, 1900 - 1992 and United States[1] Residents, 1922 - 1990



[1] United States ratios prior to 1933 are for registration areas only. United States ratios are based on three different definitions of fetal death:

1) Prior to 1942 - all reported fetal deaths regardless of period of gestation
2) 1942 to 1968 - fetal deaths with gestation age 20 weeks or more or not stated
3) 1969 to current - fetal deaths of stated or presumed period of gestation of 20 or more weeks

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 1.18

Fetal Deaths and Fetal Death Ratios

Michigan and United States Residents

Selected Years, 1900-1992

United States		Year	Michigan	
Fetal Deaths	Fetal Death Ratios		Fetal Deaths	Fetal Death Ratios
—	—	1900	1,325	30.3
86,466	39.2	1930	3,714	37.6
68,480	16.1	1960	3,008	15.4
52,961	14.2	1970	2,060	12.0
33,796	10.7	1975	1,356	10.1
33,353	9.2	1980	1,135	7.8
32,596	9.0	1981	1,040	7.4
32,694	8.9	1982	954	6.9
30,752	8.5	1983	933	7.0
30,099	8.2	1984	929	6.8
29,661	7.9	1985	953	6.9
28,972	7.7	1986	865	6.3
29,349	7.7	1987	824	5.9
29,442	7.5	1988	761	5.4
30,469	7.5	1989	881	5.9
31,386	7.5	1990	830	5.4
N.A.	N.A.	1991	775	5.2
N.A.	N.A.	1992	755	5.2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Michigan's fetal death ratios have been below the national ratios 60 of the 69 years for which national data are available. The last time the United States ratio was below the Michigan ratio was in 1950. In 1990, the Michigan ratio of 5.4 was 28.0 percent below the national ratio of 7.5. It should be noted that since 1978 fetal deaths in Michigan are comprised of infants born dead who had passed through 20 weeks gestation or weighed 400 grams or more. This definition is different from that of most states. This difference should result in Michigan having slightly higher fetal death rates than would be observed if Michigan had adopted the definition used in most states.

CAUSES OF FETAL DEATH

A classification of fetal deaths by underlying cause of death is contained in Table 1.19. In 1992, 242 of the total 755 deaths were assigned to the category of "other and ill-defined conditions originating in the perinatal period". Nearly half (44.6 percent) of the remaining fetal deaths for which a specific cause was stated were attributed to complications of placenta, cord, and membranes (ICD 762). This is a group of maternal conditions which includes placenta previa, premature separation of the placenta, placental hemorrhage, and compression of the umbilical cord.

Second in frequency was the category maternal complications of pregnancy (ICD 761), which was listed as the cause of 107 fetal deaths. This includes such complications as premature rupture of membranes, multiple pregnancy, and incompetent cervix.

Table 1.19

Fetal Deaths and Fetal Death Ratios by Underlying Cause of Death

Michigan Residents, 1992

ICD. No.[1]	Cause of Death	Frequency	Ratio[2]
779	Other and ill-defined conditions originating in the perinatal period	242	168.3
762	Fetus or newborn affected by complications of placenta, cord and membranes	229	159.2
761	Fetus or newborn affected by maternal complications of pregnancy	107	74.4
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	36	25.0
740-759	All congenital anomalies combined	78	54.2
	All other causes	63	43.8
740-779	All Causes	755	524.9

[1] Ninth Revision of the International Classification of Diseases, WHO.

[2] Ratios per 100,000 resident live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE, RACE AND ANCESTRY

The overall fetal death rate per 1,000 total births (live births plus fetal deaths) was 5.2 in 1992. In Table 1.20, information is presented by the race of the mother for fetal deaths and live births. It appears that mothers under age 20 and over age 39 plus black, American Indian and Asian and Pacific Islander mothers have a greater risk of delivering a stillborn fetus.

Mothers of Hispanic and Arab ancestry had lower fetal death rates than the state overall rate.

Table 1.20

Fetal Deaths, Total Births and Fetal Death Rates by Age, Race and Ancestry of Mother

Michigan Residents, 1992

Age and Race of Mother	Fetal Deaths	Total Births	Rate Per 1,000 Total Births
Age			
< 15 Years	1	374	*
15 - 19 Years	109	18,450	5.9
20 - 24 Years	186	37,632	4.9
25 - 29 Years	186	43,432	4.3
30 - 39 Years	222	42,917	5.2
40 +	15	1,679	8.9
Not Stated	36	98	367.3
Race			
White	548	112,006	4.9
Black	173	29,829	5.8
American Indian	8	758	10.6
Asian & P. I.	10	1,426	7.0
All Other Races	-	57	-
Not Stated	16	506	31.6
Ancestry			
Arab	11	2,357	4.7
Hispanic	16	4,309	3.7
Total	755	144,582	5.2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MEDICAL AND OTHER RISK FACTORS FOR FETAL DEATHS

In 1992, 325 fetal deaths, or 43.0 percent of all fetal deaths, occurred to women who were reported to have at least one medical or other birth-related risk factor (Table 1.21). Besides the Other category of risk factors which was reported for 331 fetal deaths, the most frequent risk factor mentioned was tobacco use during pregnancy which was reported in 25.3 percent (191) of all fetal deaths. The next most common risk factor associated with fetal deaths was alcohol use during pregnancy (43 fetal deaths).

The highest fetal death rate associated with risk factors occurred among women giving birth with reported hydramnios or oligohydramnios (43.6). The next highest fetal death rate occurred to women with reported uterine bleeding (25.1). Relatively low fetal death rates were noted for women using tobacco during pregnancy.

Table 1.21

Numbers and Percents of Fetal Deaths, and Fetal Death Rates by Medical and Other Risk Factors

Michigan Residents, 1992

Risk Factors of Mother	Number of Fetal Deaths	Percent of Fetal Deaths	Fetal Death Rate
Tobacco use during pregnancy	191	25.3	6.4
Alcohol use during pregnancy	43	5.7	12.2
Anemia(Hct.<30/Hgb.<10)	35	4.6	14.9
Hydramnios or Oligohydramnios	62	8.2	43.6
Uterine Bleeding	33	4.4	25.1
All other risk factors	331	43.8	11.2
At least one risk factor	325	43.0	11.1

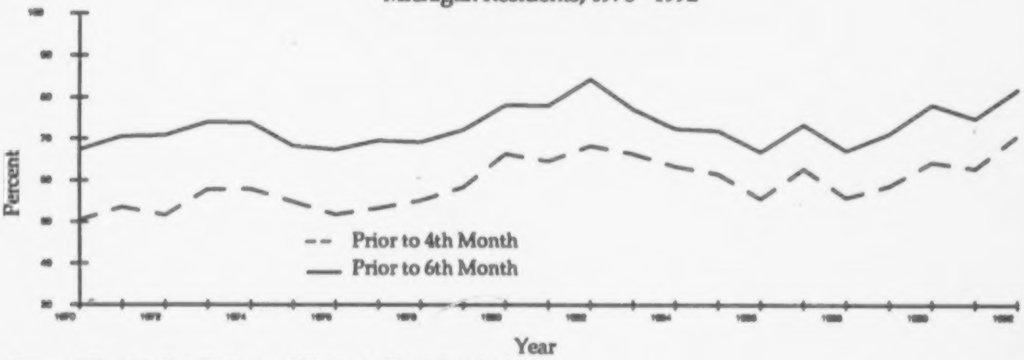
Source: Office of the State Registrar and Division for Health Statistics, MDPH

PRENATAL CARE

The proportion of all fetal deaths in 1992 that were to women who reported receiving care prior to the fourth month of pregnancy was 70.6 with 81.5 percent receiving care prior to the sixth month (Figure 1.13). The percentage of fetal deaths in which the mother received care prior to the fourth and sixth month generally increased until 1982 (Figure 1.13) and declined between 1983 and 1986 to the lowest level in the decade. By 1992 the percentages increased to the highest or second highest percentages since 1970.

The relationship between the fetal death rates and the Kessner Index of adequacy of care is displayed in Table 1.22. The fetal death rate increased as the quality of prenatal care measured by the Kessner Index decreased. The rate was 3.4 per 1,000 total births (fetal deaths and live births) born to women receiving adequate prenatal care. The rate increased to 6.8 and 10.3 for births to women receiving intermediate and inadequate levels of care respectively.

Figure 1.13
Percent of Women Having Fetal Deaths who Received Care Prior to the 4th Month and the 6th Month of Pregnancy
Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 1.22
Fetal Deaths, Total Births and Fetal Death Rates by Level of Prenatal Care and Race[1] of Mother
Michigan Residents, 1992

Level of Care (Kessner Index[2])	Race of Mother											
	All Races			White			Black			All Other		
	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates
Adequate	363	105,513	3.4	296	87,399	3.4	51	16,302	3.1	8	1,529	5.2
Intermediate	169	24,957	6.8	120	16,796	7.1	42	7,614	5.5	5	471	*
Inadequate	139	13,440	10.3	82	7,348	11.2	52	5,734	9.1	3	227	*
Unknown	84	672	125.0	50	463	108.0	28	179	156.4	2	14	*
Total	755	144,582	5.2	548	111,006	4.9	173	29,829	5.8	18	2,241	8.0

[1] Race not stated included in total columns only.

[2] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits, and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Although the overall fetal death rate is higher for black mothers than white mothers, the fetal death rate was lower for black mothers than for white mothers for each level of care. Since the Kessner Index reduces the minimum number of prenatal visits required to meet the definition of adequate care when gestational age at birth is less than 36 weeks, the percentage of fetal deaths for women with adequate prenatal care should not be affected by the shorter gestational age experienced by many fetal deaths.

FETAL WEIGHT

Among live births, the percentage of infants weighing less than 2,500 grams at birth was 7.5 percent. The comparable percent among fetal deaths was 77.9 (Table 1.23). The percentage of live born infants weighing less than 750 grams was 0.6 percent, while 44.8 percent of the fetal deaths weighed less than 750 grams.

Table 1.23

Fetal Deaths by Fetal Weight

Michigan Residents, 1992

Weight in Grams	Fetal Deaths	Cum. Percent
< 750	338	44.8
750 - 1,499	114	59.9
1,500 - 2,499	136	77.9
2,500 +	155	98.4
Unknown	12	100.0
Total	755	100.0

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MORTALITY

SECTION II

MORTALITY

OVERVIEW

In 1992 there were 78,916 deaths recorded for Michigan residents, 822 less than in the previous year. The crude death rate per 1,000 population was 8.5, 1.2 percent lower than the rate of 8.6 observed in 1991 (Table 2.1). The age-adjusted death rate, decreased in 1992, being 1.6 percent less than the age-adjusted rate for 1991. This latter rate, the age-adjusted rate, serves as a better measure of mortality than a crude death rate as age-adjusted death rates control for most of the differences or variations in the age composition of the populations.

There were 1,460 infant deaths in 1992, 94 fewer than in 1991. The 1992 infant death rate of 10.2 was 1.9 percent lower than the 1991 rate of 10.4, while the neonatal death rate remained the same at 6.7 deaths per 1,000.

An Overview, 1992

Resident Deaths	78,916
Crude Death Rate	8.5
Infant Deaths	1,460
Infant Death Rate	10.2
Neonatal Deaths	962
Neonatal Death Rate	6.7
Perinatal Deaths	1,576
Perinatal Death Rate	10.9
Maternal Deaths	15
Maternal Death Rate	10.4
Deaths from Heart Disease per Day	73.4
Deaths from Cancer per Day	52.5
Deaths from Stroke per Day	13.9
Deaths from C.O.P.D. per Day	7.8
Median Age at Death	74
Median Age at Death for Males	71
Median Age at Death for Females	78

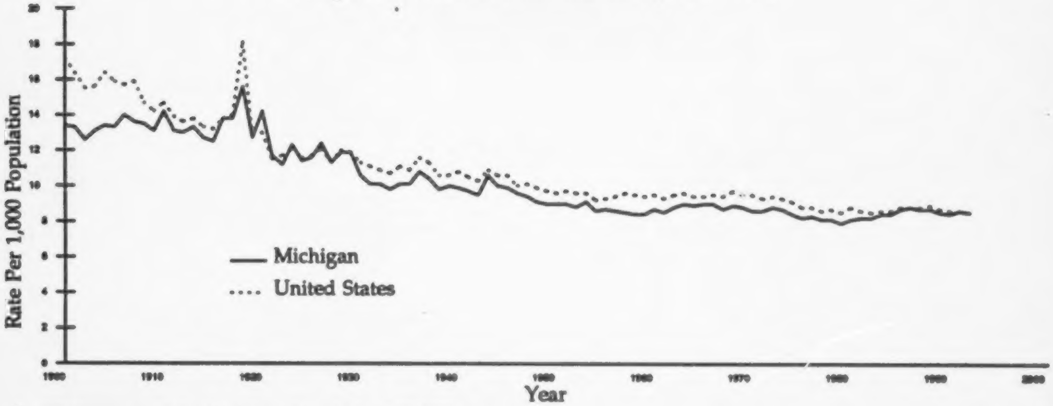
Source: Office of the State Registrar and Division for Health Statistics, MDPH

TRENDS IN MICHIGAN

Between 1900 and 1992 the number of deaths occurring to Michigan residents increased from 32,453 to 78,916. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the number of resident deaths recorded in 1986 (80,177) was the greatest number of resident deaths for the century (Table 4.1).

Although the total number of deaths increased between 1900 and 1992, the increase is due to an increasing population. The crude death rate decreased from 13.4 (per 1,000 population) in 1900 to 8.5 in 1992. The 1979 death rate of 7.9 was the lowest crude death rate ever recorded for Michigan. The highest death rate (15.6) was observed in 1918 (Figure 2.1).

Figure 2.1
Crude Death Rates[1]
Michigan and United States[2] Residents, 1900 - 1992



[1] 1990 Census population is being used to calculate 1990-1992 rates.

[2] United States rates for 1971-1979 have been revised using population estimates based on the 1980 Census enumeration. United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MICHIGAN AND UNITED STATES MORTALITY

A comparison of the number of deaths and crude death rates for Michigan and the United States for the period 1970 - 1992 is presented in Table 2.1. Between 1970 and 1984, the Michigan rates were below the United States rates. Since 1985 Michigan and United States rates have been equal or close. The Michigan rates decreased slightly between 1970 and 1992, while national rates decreased 10.5 percent in the same time period

Between 1970 and 1992 the numbers of Michigan and United States resident deaths increased, but the crude death rates decreased because the populations in these areas increased.

Table 2.1
Number of Deaths and Crude Death Rates[1]
Michigan and United States Residents, 1970 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
1,921,031	9.5	1970	76,321	8.6
1,927,542	9.3	1971	77,395	8.6
1,963,944	9.4	1972	79,210	8.8
1,973,003	9.3	1973	78,522	8.7
1,934,388	9.1	1974	76,143	8.4
1,892,879	8.8	1975	74,522	8.2
1,909,440	8.8	1976	75,801	8.3
1,899,597	8.6	1977	74,144	8.1
1,927,788	8.7	1978	74,773	8.1
1,913,841	8.5	1979	73,480	7.9
1,989,841	8.8	1980	74,991	8.1
1,977,981	8.6	1981	75,818	8.2
1,974,797	8.5	1982	75,536	8.2
2,019,201	8.6	1983	76,639	8.4
2,039,369	8.6	1984	76,401	8.4
2,086,440	8.7	1985	78,635	8.7
2,105,361	8.7	1986	80,177	8.8
2,123,323	8.7	1987	79,795	8.7
2,167,999	8.8	1988	80,075	8.7
2,150,466	8.7	1989	78,566	8.5
2,148,463	8.6	1990	78,501	8.4
2,169,518	8.6	1991	79,738	8.6
2,177,000[1]	8.5Pr.	1992	78,916	8.5

[1] 1990 Census population is used to calculate 1990-1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MORTALITY DIFFERENCES BY SEX AND RACE

Over the period 1970-1992 the age-adjusted death rates for Michigan males and females were usually slightly higher than the national rates. During the last ten years Michigan female rates were 2.1 to 6.6 percent higher than the national rates, while Michigan male rates fluctuated from 2.0 percent lower to 4.1 percent higher than the national rates (Figure 2.2).

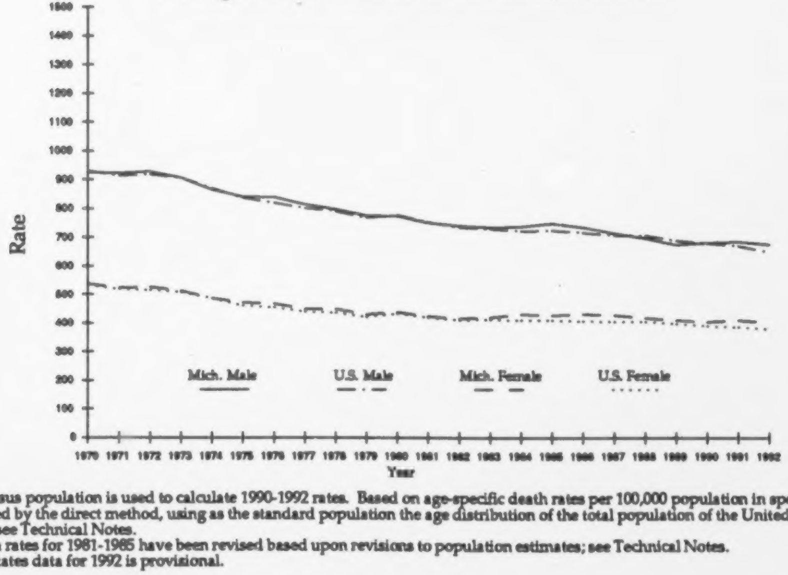
The national and Michigan age-adjusted death rates displayed in Figure 2.3 were similar for white males, while the Michigan white female rates were from 0.3 to 4.6 percent higher than the national white female rates.

Michigan age-adjusted death rates for black males and females were similar to national rates before 1981 (Figure 2.4). After 1980 the Michigan black male rates were 0.6 to 9.0 percent higher and Michigan black female rates were 0.6 to 11.0 percent higher than rates for their national counterparts.

Health status disparities between the black and white population increased during the last twenty-three years. Michigan age-adjusted rates for black males and females were 43.3 and 54.2 percent higher than their white counterparts in 1970. By 1992 black male and female rates were 70.0 and 63.4 percent higher than rates for their white counterparts.

Steady declines have generally occurred since 1970 both in Michigan and the United States in age-adjusted death rates in each race-sex group. For Michigan black persons, male and female age-adjusted rates declined 16.8 and 22.7 percent, respectively. The United States rates for these groups declined by 25.8 and 31.1 percent, respectively, during this period. The Michigan rates for white males and females declined 29.9 and 27.1 percent, while national rates dropped slightly more (30.8 and 28.0 percent).

Figure 2.2
Total Age-Adjusted Death Rates[1] by Sex
Michigan[2] and United States[3] Residents, 1970-1992



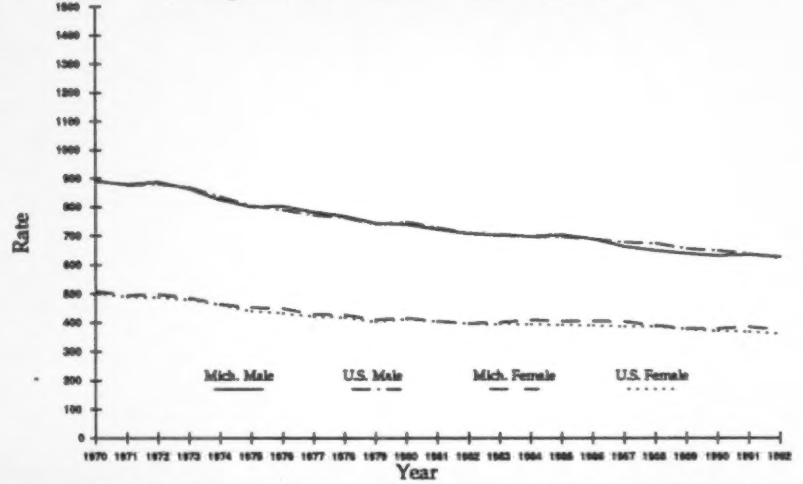
[1] 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

[2] Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

[3] United States data for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 2.3
White Age-Adjusted Death Rates[1] by Sex
Michigan[2] and United States[3] Residents, 1970-1992



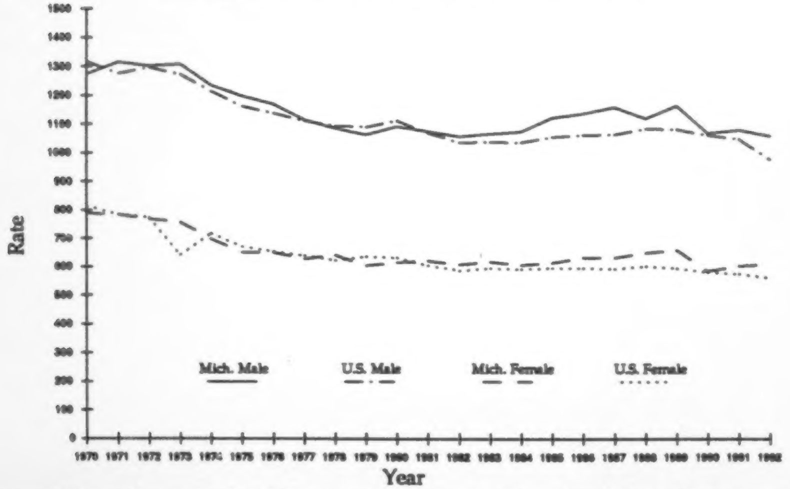
[1] 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

[2] Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

[3] United States data for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 2.4
Black Age-Adjusted Death Rates[1] by Sex
Michigan[2] and United States[3] Residents, 1970-1992



[1] 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

[2] Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

[3] United States data for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MORTALITY BY RACE AND ANCESTRY

Table 2.2 presents data on the number of deaths by race for the period 1980-1992 and ancestry since 1989. In 1992 deaths of white persons (66,377) accounted for 84.1 percent of all deaths, while deaths of black persons constituted 15.0 percent of the state total. For less than one percent of the deaths, the race was reported as American Indian or Asian and Pacific Islander. For 0.6 percent and 0.8 percent of the deaths, the ancestry was listed as Arab or Hispanic, respectively. It should be noted that data on race and ancestry are derived from the death certificates filed by funeral directors. Data from sources where race is self-enumerated, when matched with death data, indicate that there are larger numbers of American Indians and persons of races other than white and black dying than are reported as members of those groups on the death certificate[1]. However, the major increase in 1989 in the number of American Indian deaths listed as the decedent's race may be due to the inclusion of ancestry on the death certificate that year. By requesting information about ancestry, certifiers may be identifying American Indian decedents who might otherwise be identified as white.

Table 2.2

Number of Deaths by Race[1] and Ancestry

Michigan Residents, Selected Years, 1980 - 1992

Year	Race						Ancestry	
	Total	White	Black	Amer. Indian	Asian & P.I.	Other	Arab	Hispanic
1980	74,991	64,897	9,704	137	92	1	N.A.	N.A.
1985	78,635	67,426	10,903	130	115	1	N.A.	N.A.
1986	80,177	68,602	11,283	139	132	2	N.A.	N.A.
1987	79,795	67,831	11,614	137	144	2	N.A.	N.A.
1988	80,075	68,191	11,569	132	149	3	N.A.	N.A.
1989	78,566	66,031	11,939	335	183	2	486	612
1990	78,501	66,156	11,739	352	215	5	471	603
1991	79,738	67,182	11,980	324	208	2	547	627
1992	78,916	66,377	11,868	389	233	2	508	635

[1] Deaths with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

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[1] National Center for Health Statistics, Comparability of Marital Status, Race, Nationality and Country of Origin in the Death Certificate and Matching Census Record: United States, May - August, 1986 (Washington, D.C., 1969).

NUMBER OF DEATHS BY AGE, RACE AND SEX

The numbers of deaths increased with age through age 75-79. Half of all deaths occurred at or below age 74. For males half the deaths occurred at or above 71, while for females, half occurred at or below age 78. Males represented over half the deaths (51.3 percent) in 1992. Among black persons a higher percentage of deaths (54.9 percent) were to males.

Until age 79 more males than females died in each age group. After age 79 more females died.

Table 2.3

Number of Deaths by Age, Race and Sex[1]

Michigan Residents, 1992

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	1,460	840	618	781	450	331	656	377	277	23	13	10
1-4	256	163	93	158	107	51	91	52	39	6	3	3
5-9	167	102	65	116	70	46	48	29	19	3	3	-
10-14	189	130	59	140	99	41	47	29	18	2	2	-
15-19	537	388	149	354	246	108	177	138	39	6	4	2
20-24	761	582	179	466	358	108	278	212	66	16	11	5
25-29	807	580	227	502	357	145	287	210	77	13	11	2
30-34	1,056	712	344	750	507	243	293	196	97	12	8	4
35-39	1,398	966	432	920	644	276	461	309	152	16	12	4
40-44	1,732	1,120	612	1,156	766	390	548	339	209	28	15	13
45-49	2,008	1,279	729	1,435	911	524	533	342	191	39	25	14
50-54	2,571	1,521	1,050	2,000	1,179	821	532	318	214	36	22	14
55-59	3,394	2,039	1,355	2,651	1,614	1,037	696	391	305	45	32	13
60-64	5,517	3,293	2,224	4,468	2,727	1,741	977	529	448	70	37	33
65-69	8,192	4,772	3,420	6,859	4,031	2,828	1,261	696	565	70	43	27
70-74	10,074	5,672	4,402	8,678	4,911	3,767	1,324	729	595	63	26	37
75-79	10,992	5,701	5,291	9,716	5,044	4,672	1,207	618	589	63	36	27
80-84	10,791	4,950	5,841	9,629	4,418	5,211	1,098	499	599	56	26	30
85-89	9,003	3,500	5,503	8,228	3,182	5,046	734	303	431	38	13	25
90+	8,007	2,208	5,799	7,367	1,999	5,368	619	202	417	19	6	13
Not Stated	4	1	3	3	1	2	1	-	1	-	-	-
All Ages	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276

[1] Deaths with race and/or sex not stated are included only in the total column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE-SPECIFIC MORTALITY BY RACE AND ANCESTRY

The race and age-specific mortality rates were lowest in Asian and Pacific Islanders and next lowest for the white population below age 85 years (Table 2.4). Age-specific rates were highest for the black population below age 55 years and highest for American Indians at 55 years of age and over. Rates for persons of Hispanic ancestry were similar to the rates for white and Asian and Pacific Islanders.

Similarly, for both males and females the age-specific mortality rates are generally lowest for the white and Asian and Pacific Islander populations and for persons of Hispanic ancestry (Tables 2.5 and 2.6). Below 55 years of age these rates are highest for black males and females and between 55 and 84 they are highest for American Indian males and females. The age-adjusted rates indicate the same pattern of differences between the race and ancestry groups.

Caution must be exercised when interpreting the low age-adjusted rates for Asian and Pacific Islanders. They may be low due to improper identification of the race. Also since this population has increased by 68.9 percent between 1980 and 1990, predominately through in-migration, the low mortality rates for people over 45 years of age may be due in part to selective migration. Healthier older people may be more willing to migrate to another state or country than the less healthy people.

Table 2.4
Death Rates[1] by Age, Race and Hispanic Ancestry
Michigan Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total[2]	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	849.0	847.9	914.7	674.7	219.4	315.0
< 1	1,015.1	700.7	2,212.0	1,333.3	918.1	885.2
1-14	31.9	26.7	57.9	32.6	21.8	26.4
15-24	92.3	71.9	194.9	119.0	45.2	107.9
25-34	118.3	94.7	268.9	136.1	53.2	106.8
35-44	223.2	174.5	541.5	336.9	86.2	197.0
45-54	485.0	419.4	980.2	817.3	311.6	325.8
55-64	1,122.2	1,023.8	1,851.2	2,480.6	687.4	674.8
65-74	2,792.0	2,678.7	3,725.0	4,370.4	2,005.7	2,065.1
75-84	6,319.3	6,233.8	7,120.8	9,597.9	4,464.3	3,947.4
85+	16,177.6	16,399.3	14,062.0	21,341.5	9,333.3	10,352.9
Age-Adjusted Rate[3]	525.3	483.2	806.9	843.1	335.3	370.5

[1] 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

[2] Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

[3] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.5

Death Rates[1] by Age, Race and Hispanic Ancestry

Michigan Male Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total[2]	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	897.9	879.6	1,075.6	741.4	258.3	392.9
< 1	1,137.4	784.7	2,503.8	1,219.5	1,078.2	1,019.0
1-14	40.2	34.7	67.9	50.9	29.1	35.8
15-24	137.3	104.7	309.9	180.9	48.4	155.5
25-34	167.0	131.2	417.6	196.6	87.7	159.8
35-44	302.8	237.8	773.1	510.8	74.9	296.0
45-54	605.6	516.8	1,335.1	1,129.9	345.4	397.0
55-64	1,411.0	1,300.4	2,288.7	2,821.3	1,140.7	920.5
65-74	3,642.1	3,509.1	4,772.8	5,350.8	2,378.6	2,889.6
75-84	8,283.0	8,188.6	9,178.9	11,881.2	5,829.6	5,226.5
85+	19,309.3	19,723.1	16,192.0	13,461.5	11,000.0	13,157.9
Age-Adjusted Rate[3]	677.3	623.7	1,059.9	1,021.2	430.2	503.0

[1] 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

[2] Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

[3] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.6

Death Rates[1] by Age, Race and Hispanic Ancestry

Michigan Female Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total[2]	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	802.8	817.6	773.7	609.7	181.7	235.5
< 1	883.2	611.7	1,897.9	1,470.6	741.8	749.8
1-14	23.2	18.3	47.7	13.4	14.5	16.8
15-24	46.8	38.2	87.2	55.6	41.7	57.9
25-34	71.3	58.5	147.2	77.0	19.2	51.6
35-44	146.4	111.6	352.0	177.9	95.8	94.4
45-54	369.2	324.4	684.0	526.1	276.7	252.8
55-64	859.9	768.4	1,501.2	2,170.2	313.6	433.6
65-74	2,128.6	2,027.7	2,931.8	3,607.8	1,743.4	1,357.7
75-84	5,150.9	5,073.2	5,880.0	8,119.7	3,380.8	3,064.9
85+	14,952.9	15,130.2	13,040.8	25,000.0	8,000.0	8,464.6
Age-Adjusted Rate[3]	404.4	372.4	608.7	684.5	257.5	251.8

[1] 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

[2] Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

[3] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

LIFE EXPECTANCY

In 1992 the life expectancy at birth was 71.9 years for males and 78.2 years for females based on 1992 mortality and 1990 census population data. Females demonstrated a significantly greater longevity than males, due to the higher mortality rates of males at all ages.

TREND IN LIFE EXPECTANCY

Life expectancies by sex in selected years for Michigan and United States residents are presented in Table 2.7. It can be seen that longevity has increased greatly in Michigan since 1901, by 18.5 years for males and by 23.1 years for females. Females born in Michigan in 1901 could expect to live 1.7 years longer than their male counterparts. By 1950 the differential in life expectancy between the sexes was 5.5 years. This disparity increased to 7.4 years by 1970. Since 1970 male life expectancy has risen faster than female life expectancy and the disparity has decreased to 6.3 years.

The life expectancy of Michigan residents was well above that for the nation in 1901, but this differential had virtually disappeared by 1950. Between 1981 and 1991 both males and females in Michigan had lower life expectancy than corresponding sex groups in the nation. By 1991 the life expectancies of males and females in Michigan were 0.3 and 0.9 years, respectively, below the national provisional life expectancy.

LIFE EXPECTANCY BY RACE

White persons have had a greater life expectancy than black persons of the same sex since 1950 (Table 2.8). The life expectancy of white males was 9.3 years greater than black males in 1992 compared to a differential of 5.8 years in 1950. While life expectancy for white males increased slowly after 1980, life expectancy of black males decreased in the mid 1980's. The 1992 black male life expectancy was still slightly lower than it had been in 1982. The life expectancy for white males rose from 68.2 in 1970 to 73.3 years in 1992.

In 1950, Michigan resident white females had an average longevity 8.5 years greater than black females. This disparity declined to 5.4 years by 1980 and increased to 6.5 years by 1992. Life expectancy generally increased for white females between 1950 and 1992, but it rose until 1982 for black females and generally declined through 1989. By 1992 their life expectancy increased to 72.7 again,

Table 2.7

Life Expectancy[1] at Birth by Sex

Michigan[2] and United States Residents

Selected Years, 1901 - 1992

United States		Year	Michigan	
Male	Female		Male	Female
47.6	50.6	1901	53.4	55.1
48.4	51.8	1910	53.9	56.2
53.6	54.6	1920	55.1[1]	56.0[1]
58.1	61.6	1930	59.8[1]	62.8[1]
60.8	65.2	1940	63.4[1]	64.4[1]
65.6	71.1	1950	65.7	71.2
66.6	73.1	1960	67.1	73.3
67.1	74.7	1970	67.2	74.6
68.8	76.6	1975	68.5	75.7
70.0	77.4	1980	70.0	76.9
70.4	77.8	1981	70.3	77.1
70.9	78.1	1982	70.6	77.4
71.0	78.1	1983	70.7	77.4
71.2	78.2	1984	70.8	77.2
71.2	78.2	1985	70.6	77.4
71.3	78.3	1986	70.7	77.4
71.5	78.4	1987	71.1	77.4
71.5	78.3	1988	71.3	77.6
72.2	79.1	1989	71.6	77.7
71.8	78.8	1990	71.7	78.1
72.0	78.9	1991	71.7	78.0
N.A.	N.A.	1992	71.9	78.2

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Michigan data for years 1920, 1930 and 1940 are for white persons only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

the same average longevity achieved ten years before.

YEARS OF LIFE REMAINING

The expected number of years of life remaining are presented graphically by age, race, and sex in Figure 2.5. The number of years of life remaining for females was greater than that for males throughout life. The average number of years remaining for white males and females surpassed or equaled that of their black counterparts for all age groups. However, with advancing age the race disparity in years of life remaining diminished, so that black persons displayed similar expected years of life remaining with their white counterparts in age intervals over 69 years.

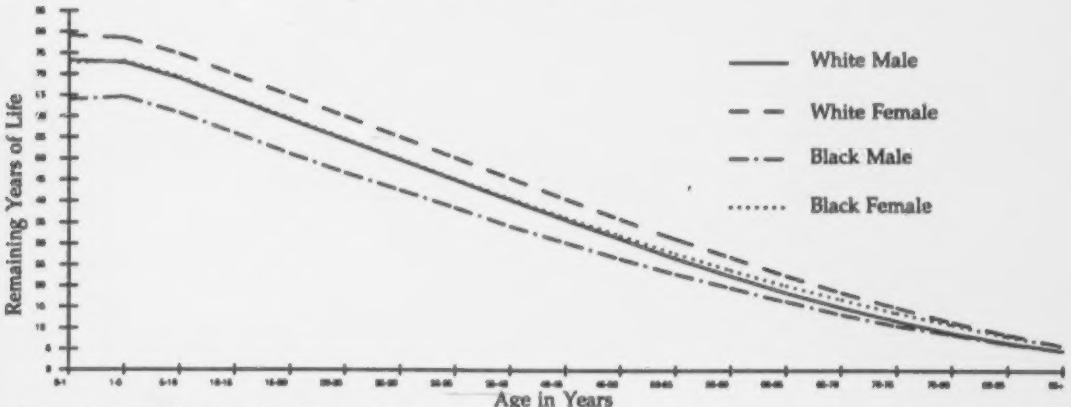
Table 2.8
Life Expectancy[1] at Birth by Sex and Race
Michigan Residents, Selected Years, 1950 - 1992

Population Subgroup	Year														
	1950	1960	1970	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
White															
Male	66.2	67.5	68.2	71.0	71.5	71.6	71.8	71.7	71.9	72.4	72.6	73.1	73.1	73.1	73.3
Female	71.9	74.0	75.3	77.6	78.0	78.1	78.0	78.1	78.2	78.2	78.5	78.8	79.0	78.8	79.2
Black[2]															
Male	60.4	63.6	59.9	63.5	64.1	64.2	63.9	62.9	62.7	62.4	63.1	62.3	63.8	63.4	64.0
Female	63.4	67.7	68.3	72.2	72.7	72.5	72.5	72.5	72.0	72.0	71.8	71.4	73.2	72.8	72.7

[1] 1990 Census population is used to calculate 1990-1992 rates.
[2] Data for 1950 and 1960 are for persons other than white.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 2.5
Remaining Years of Life by Age, Sex and Race
Michigan Residents, 1992



[1] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MARITAL STATUS

The numbers of deaths by marital status for men and women are displayed in Table 2.9. The majority of men were married at the time of death while the majority of women were widows. Men were more than twice as likely as women to be married at the time of death (56.9 percent compared to 26.6 percent). Conversely, women were over three times as likely to be widows at the time of death as men were to be widowers (55.9 percent compared to 17.7 percent).

PLACE OF OCCURRENCE

There were 2,017 Michigan resident deaths in 1992 that occurred outside the state (Table 2.10). This represents 2.6 percent of all resident deaths. The states with the highest number of Michigan resident deaths were Florida and Ohio. The border areas of Illinois, Indiana, Ohio, Wisconsin and Canada accounted for 53.6 percent of all resident deaths occurring outside Michigan.

Of the 2,030 non-residents who died in Michigan in 1992, 53.9 percent were from the border areas while 19.6 percent were Floridians.

Table 2.9

Deaths by Sex and Marital Status

Michigan Residents, 1992

Marital Status[1]	Males Number	Males Percent	Females Number	Females Percent
Total	40,519	100.0	38,395	100.0
Never Married	6,063	15.0	3,509	9.1
Divorced	4,131	10.2	3,172	8.3
Widowed	7,152	17.7	21,449	55.9
Married	23,060	56.9	10,210	26.6
Unknown	113	0.3	55	0.1

[1] Divorced includes legally separated.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.10

Michigan Deaths

Occurring Outside Michigan to Michigan Residents by Place of Occurrence and Occurring in Michigan to Non-Michigan Residents by Place of Residence, 1992

Geographic Area	Residents Occurring Outside Michigan		Non-Residents Occurring In Michigan	
	Number	Percent	Number	Percent
Total	2,017	100.0	2,030	100.0
Florida	398	19.7	397	19.6
Ohio	394	19.5	402	19.8
Wisconsin	312	15.5	314	15.5
Indiana	269	13.3	270	13.3
Illinois	81	4.0	82	4.0
Arizona	73	3.6	73	3.6
Texas	63	3.1	63	3.1
Minnesota	53	2.6	53	2.6
California	36	1.8	36	1.8
Tennessee	33	1.6	33	1.6
Pennsylvania	26	1.3	26	1.3
Georgia	24	1.2	6	0.3
New York	6	0.3	24	1.2
Canada	25	1.2	26	1.3
Other Areas	224	11.1	225	11.1

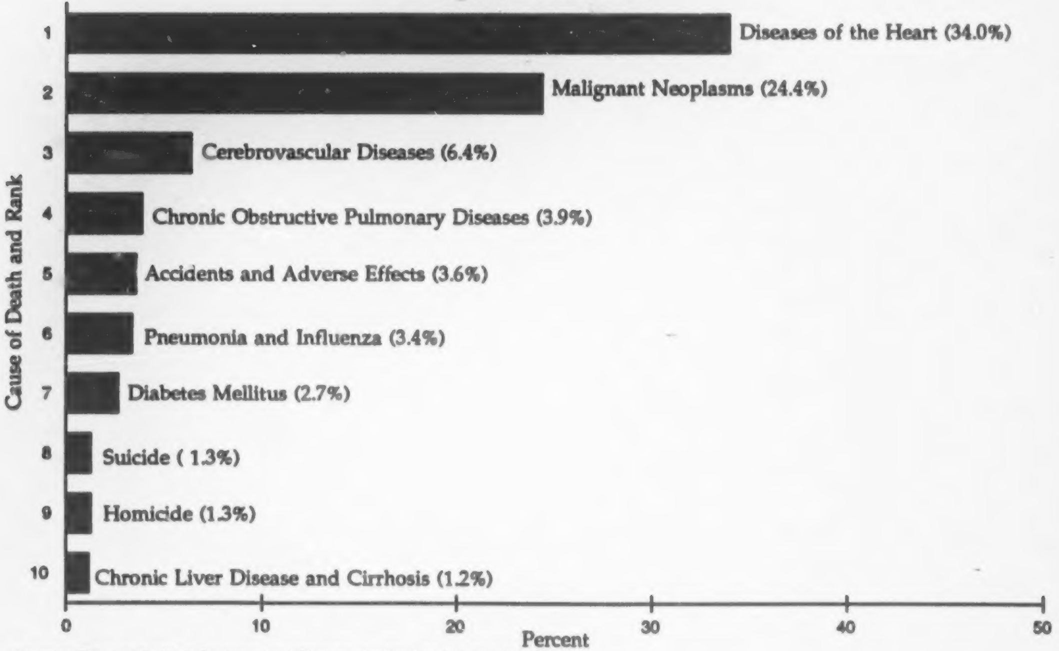
Source: Office of the State Registrar and Division for Health Statistics, MDPH

LEADING CAUSES OF DEATH

Ten Leading Causes of Death Deaths due to the 10 leading causes accounted for 82.3 percent of all deaths in 1992. Diseases of the heart was the leading cause of death with 34.0 percent of all deaths. Another 24.4 percent of the deaths were due to cancer. Together these two causes of death were responsible for 58.4 percent of all Michigan resident deaths. The third leading cause of death was cerebrovascular diseases with 6.4 percent of all deaths. The percentage of total deaths resulting from each of the 10 leading causes of death in 1992 is illustrated in Figure 2.6.

The numbers of deaths and the death rates for the 10 leading causes in 1992 are shown in Table 2.11. The ranking is unchanged from 1991 with chronic obstructive pulmonary diseases still ranked 4th. In 1991 accidents dropped from 4th to 5th leading cause of deaths in Michigan for the first time since 1930. This same change occurred nationally in 1992.

Figure 2.6
Leading Causes of Death
Michigan Residents, 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Cause-Specific Crude Death Rates These rates in Michigan were higher in 1992 than in 1991 for two of the ten leading causes: malignant neoplasms and diabetes mellitus. The rates were lower for diseases of the heart, cerebrovascular diseases, chronic obstructive pulmonary diseases and allied conditions, accidents and adverse effects, pneumonia and influenza, suicide, homicide, and chronic liver disease and cirrhosis.

The order of the leading causes of death for Michigan and the United States were the same in 1992 (Table 2.11). The overall Michigan death rate was slightly lower than the national rate (0.5 percent). Michigan's mortality rates for diabetes mellitus and homicide were 15.8 and 11.9 percent higher, respectively, than the comparable national rates. The Michigan death rates for accidents and chronic obstructive pulmonary disease were about seven percent lower than the national rates.

Table 2.11

Leading Causes of Death and Cause-Specific Rates[1]

Michigan and United States[2] Residents, 1992

Rank	Cause of Death	Number of Deaths		Rate	
		Michigan	U.S.	Michigan	U.S.
1	Diseases of the Heart	26,863	718,970	289.0	280.5
2	Malignant Neoplasms	19,217	520,520	206.7	203.1
3	Cerebrovascular Diseases	5,087	143,320	54.7	55.9
4	Chronic Obstructive Pulmonary Disease and Allied Conditions	3,076	91,080	33.1	35.5
5	Accidents and Adverse Effects	2,844	84,360	30.6	32.9
6	Pneumonia and Influenza	2,697	75,860	29.0	29.6
7	Diabetes Mellitus	2,114	50,220	22.7	19.6
8	Suicide	1,063	28,710	11.4	11.2
9	Homicide	1,047	25,790	11.3	10.1
10	Chronic Liver Disease and Cirrhosis	947	24,860	10.2	9.7
	Sub Total	64,955	1,763,690	698.8	688.1
	All Other Causes	13,961	413,310	150.2	165.2
	Total	78,916	2,177,000	849.0	853.3

[1] 1990 Census population is used to calculate 1992 rates.

[2] United States data are estimates based on a 10 percent sample of deaths.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Leading Causes of Death by Race and Sex The numbers of deaths and crude death rates are presented by race and sex for the 10 leading causes of death in Tables 2.12 and 2.13. The order of the leading causes for each group was similar with some notable exceptions. Suicide, the overall eighth leading cause of death, was the seventh leading cause for white males. Accidents, the fifth leading cause of death, was the seventh leading cause for white females. Homicide, the ninth leading cause of death, was the third and sixth leading cause of death for black males and females, respectively. Finally, diabetes, the seventh leading cause, was the fourth leading cause for black females. Most of these differences were also observed in 1991.

It is noteworthy that the homicide rate for black males decreased from 110.3 deaths per 100,000 in 1991 to 95.3 deaths 1992.

Table 2.12
Leading Causes of Death by Race and Sex[1]
Michigan Residents, 1992

Cause of Death	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	26,863	13,403	13,460	23,194	11,539	11,655	3,473	1,746	1,727	184	109	75
Malignant Neoplasms	19,217	10,238	8,979	16,452	8,691	7,761	2,615	1,464	1,151	147	81	66
Cerebrovascular Diseases	5,087	1,989	3,098	4,442	1,703	2,739	607	273	334	37	13	24
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	1,741	1,335	2,798	1,577	1,221	257	154	103	20	9	11
Accidents and Adverse Effects	2,844	1,844	1,000	2,370	1,530	840	424	283	141	48	31	17
Pneumonia/Influenza	2,697	1,308	1,389	2,367	1,117	1,250	316	184	132	13	6	7
Diabetes Mellitus	2,114	892	1,222	1,702	722	980	389	158	231	23	12	11
Suicide	1,063	861	202	945	761	184	105	90	15	13	10	3
Homicide	1,047	819	228	320	234	86	718	578	140	9	7	2
Chronic Liver Disease and Cirrhosis	947	624	323	710	471	239	220	140	80	17	13	4
All Other Causes	13,961	6,800	7,159	11,077	5,276	5,801	2,744	1,448	1,294	113	57	56
Total	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276

[1] Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.13
Leading Causes of Death and Crude Death Rates[1] by Race and Sex[2]
Michigan Residents, 1992

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	289.0	297.0	281.4	296.2	301.8	290.9	267.6	288.2	249.6
Malignant Neoplasms	206.7	226.9	187.7	210.1	227.3	193.7	201.5	241.4	166.5
Cerebrovascular Diseases	54.7	44.1	64.8	56.7	44.5	68.4	46.8	45.0	48.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33.1	38.6	27.9	35.7	41.2	30.5	19.8	25.4	14.9
Accidents and Adverse Effects	30.6	40.9	20.9	30.3	40.0	21.0	32.7	46.7	20.5
Pneumonia/Influenza	29.0	29.0	29.0	30.2	29.2	31.2	24.3	30.3	19.1
Diabetes Mellitus	22.7	19.8	25.6	21.7	18.9	24.5	30.0	26.1	33.4
Suicide	11.4	19.1	4.2	12.1	19.9	4.6	8.1	14.8	2.2
Homicide	11.3	18.1	4.8	4.1	6.1	2.1	55.3	95.3	20.2
Chronic Liver Disease and Cirrhosis	10.2	13.8	6.8	9.1	12.3	6.0	16.9	23.1	11.6
All Other Causes	150.2	150.7	149.7	141.7	138.4	144.9	211.6	239.3	187.3
Total	849.0	897.9	802.8	847.9	879.6	817.7	914.6	1,075.6	773.5

[1] 1990 Census population is used to calculate 1992 rates.

[2] Death with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Age-adjusted Rates by Race and Sex These rates are presented for the ten leading causes of death in Table 2.14. These rates are adjusted for the differences in age distributions among the groups. The age-adjusted death rates for white females were lower than the rates for the other three groups for eight of the ten leading causes of death. The greatest differentials between black and white female rates occurred for diabetes, chronic liver disease and cirrhosis, and homicide where the black female rates were 2.3, 2.9 and 9.1 times higher, respectively, than rates for white females.

Rates for black males and females were lower for chronic obstructive pulmonary diseases and allied conditions and suicides than their white counterparts. Black male rates were higher than white male rates, for the remaining ten leading causes of death. The greatest differentials between black and white male rates occurred for diabetes, chronic liver disease and cirrhosis, and homicide where black males rates were 2.0, 2.5 and 15.6 times higher. For the remaining conditions the black male and female rates were 1.3 to 1.7 times higher than rates for their white counterparts.

Table 2.14
Leading Causes of Death and Age-Adjusted Death Rates[1] by Race and Sex[2]
Michigan Residents, 1992

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	157.9	211.5	116.0	149.2	202.2	107.7	223.4	284.4	177.0
Malignant Neoplasms	140.5	173.8	117.0	134.4	165.0	112.8	188.6	246.9	147.0
Cerebrovascular Diseases	27.4	29.5	25.8	25.8	27.7	24.3	38.9	43.9	35.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19.5	26.6	14.8	19.5	26.8	14.9	17.8	24.9	13.0
Accidents and Adverse Effects	26.3	38.0	15.4	25.4	36.6	14.8	31.9	47.9	18.5
Pneumonia/Influenza	13.7	18.3	10.6	12.7	16.9	10.0	20.3	29.2	13.7
Diabetes Mellitus	14.4	15.1	13.6	12.6	13.5	11.8	27.6	27.6	27.4
Suicide	10.8	18.2	3.9	11.2	18.5	4.2	8.1	15.0	2.2
Homicide	11.7	18.6	4.9	4.1	6.2	2.2	55.6	96.6	20.1
Chronic Liver Disease and Cirrhosis	8.6	12.4	5.2	7.1	10.5	4.2	18.6	26.6	12.2
All Other Causes	94.5	115.3	77.0	81.2	99.8	65.5	175.8	216.9	142.4
Total	525.3	677.3	404.4	483.1	623.7	372.4	806.8	1,060.0	608.6

[1] 1990 Census population is used to calculate 1992 rates.

[2] Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Five Leading Causes by Age, Race and Sex Age-specific mortality rates for the leading causes of death among residents of different ages, sexes and races are more varied than age-adjusted rates for the race-sex groups (Tables 2.15 through 2.19).

Leading causes of death for infants are generally different than the causes observed for other age groups. The leading cause for all four race-sex groups of infants is certain conditions originating in the perinatal period. Congenital anomalies and sudden infant death syndrome were the second or third leading cause for infants in each group.

Accidents were the leading cause of death for white males and females from ages 1 through 34 years. Accidents were among the top leading causes of death for black males and females ages 1 to 34 years and were the leading cause for ages 1 to 14 years.

Homicide was the second leading cause of death overall for ages 15 through 34 years, but was the leading cause of death for black males and females ages 15 through 34 years and the second leading cause of death for black males ages 5 through 14 years. In fact, over half of the homicides among Michigan residents occurred among black males 15 to 49 years of age. Compared to homicide rates in 1991, the rates for black males ages 15-24, 25-34 and 35-49 decreased 19.1, 6.3 and 17.2 percent, respectively.

Suicide was the third leading cause of death overall for ages 15-34 and second among white males. Suicide was the third or fourth leading cause among black males and white females ages 15 through 34 years.

Among persons 35 years and over, chronic conditions are responsible for the majority of deaths. Malignant neoplasms was the leading cause of death for black and white females ages 35 to 64 years and white males ages 50-64 years.

Diseases of the heart was the leading cause of death for black males ages 35 years or over, white males ages 35-49 years and 65 years and over and black and white females 65 years of age or over.

AIDS Overall, AIDS is the fourth leading cause of death for people 25 to 49 years of age. Among white males it is the third leading cause of death for ages 25-34 years of age and fifth for ages 35-49 years of age. It was second and fourth leading cause for black males ages 25-34 and 35-49 years of age, respectively. AIDS was also the fifth leading cause for black males 15-24 years of age. For black females, AIDS was the fourth leading cause for ages 25-49. AIDS was not one of the top five causes of death for any white female age group in 1992. The first year that AIDS was among the five leading causes in a race-sex-age group was 1987 but that was also the first year that AIDS deaths could be tabulated separately from pneumonia, cancer and other causes of death.

Table 2.15
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Residents, 1992

Age	Rank and Cause of Death	Number[1]	Rate[2,3,4]
All Ages	1. Diseases of the Heart	26,863	289.0
	2. Malignant Neoplasms	19,217	206.7
	3. Cerebrovascular Diseases	5,087	54.7
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	33.1
	5. Accidents	2,844	30.6
	All Causes	78,916	849.0
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	777	513.7
	2. Congenital Anomalies	248	164.0
	3. Sudden Infant Death Syndrome	243	160.6
	4. Accidents	29	19.2
	5. Pneumonia and Influenza	20	13.2
	All Causes	1,460	965.2
1-4 Years	1. Accidents	95	16.9
	2. Congenital Anomalies	28	5.0
	3. Malignant Neoplasms	22	3.9
	4. Homicide	19	3.4
	5. Diseases of the Heart	14	2.5
	All Causes	256	45.5
5-14 Years	1. Accidents	167	12.3
	2. Malignant Neoplasms	50	3.7
	3-4. Homicide-Congenital Anomalies	19	1.4
	5-6. Diseases of the Heart-Pneumonia and Influenza	7	0.5
	All Causes	356	26.3
15-24 Years	1. Accidents	441	31.3
	2. Homicide	357	25.4
	3. Suicide	179	12.7
	4. Malignant Neoplasms	84	6.0
	5. Diseases of the Heart	32	2.3
	All Causes	1,298	92.3
25-34 Years	1. Accidents	393	25.0
	2. Homicide	282	17.9
	3. Suicide	234	14.9
	4. HTLV-III/LAV Infection (AIDS)	198	12.6
	5. Malignant Neoplasms	196	12.4
	All Causes	1,863	118.3
35-49 Years	1. Malignant Neoplasms	1,209	62.9
	2. Diseases of the Heart	1,008	52.4
	3. Accidents	463	24.1
	4. HTLV-III/LAV Infection (AIDS)	300	15.6
	5. Suicide	287	14.9
	All Causes	5,138	267.3
50-64 Years	1. Malignant Neoplasms	4,397	361.0
	2. Diseases of the Heart	3,482	285.8
	3. Cerebrovascular Diseases	441	36.2
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	420	34.5
	5. Diabetes	358	29.4
	All Causes	11,482	942.6
65 and Over	1. Diseases of the Heart	22,187	2,009.5
	2. Malignant Neoplasms	13,256	1,200.6
	3. Cerebrovascular Diseases	4,412	399.6
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	2,578	233.5
	5. Pneumonia and Influenza	2,376	215.2
	All Causes	57,059	5,167.9

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

[4] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.16
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident White Males, 1992

Age	Rank and Cause of Death	Number[1]	Rate[2,3,4]
All Ages	1. Diseases of the Heart	11,539	301.6
	2. Malignant Neoplasms	8,691	227.2
	3. Cerebrovascular Diseases	1,703	44.5
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,577	41.2
	5. Accidents	1,530	40.0
	All Causes	33,621	878.9
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	186	309.2
	2. Sudden Infant Death Syndrome	106	176.2
	3. Congenital Anomalies	99	164.6
	4. Accidents	11	18.3
	5. Pneumonia and Influenza-Diseases of the Heart	6	10.0
	All Causes	450	748.2
1-4 Years	1. Accidents	49	21.2
	2. Congenital Anomalies	15	6.5
	3. Malignant Neoplasms	8	3.5
	4. Diseases of the Heart	6	2.6
	5-6. Homicide-Certain Conditions Originating in the Perinatal Period	2	*
	All Causes	107	46.2
5-14 Years	1. Accidents	86	15.2
	2. Malignant Neoplasms	28	4.9
	3. Congenital Anomalies	7	1.2
	4. Suicide	4	*
	5. Homicide-Benign Neoplasms	3	*
	All Causes	16[illegible]	29.8
15-24 Years	1. Accidents	277	48.0
	2. Suicide	123	21.3
	3. Homicide	60	10.4
	4. Malignant Neoplasms	40	6.9
	5. Congenital Anomalies	15	2.6
	All Causes	604	104.6
25-34 Years	1. Accidents	232	35.1
	2. Suicide	165	25.0
	3. HTLV-III/LAV Infection (AIDS)	102	15.4
	4. Malignant Neoplasms	67	10.1
	5. Diseases of the Heart	60	9.1
	All Causes	864	130.7
35-49 Years	1. Diseases of the Heart	552	67.6
	2. Malignant Neoplasms	447	54.8
	3. Accidents	283	34.7
	4. Suicide	211	25.9
	5. HTLV-III/LAV Infection (AIDS)	139	17.0
	All Causes	2,321	284.4
50-64 Years	1. Malignant Neoplasms	1,971	382.0
	2. Diseases of the Heart	1,917	371.5
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	199	38.6
	4. Accidents	171	33.1
	5. Cerebrovascular Diseases	165	32.0
	All Causes	5,520	1,069.8
65 and Over	1. Diseases of the Heart	8,986	2,263.6
	2. Malignant Neoplasms	6,128	1,543.6
	3. Cerebrovascular Diseases	1,462	368.3
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,354	341.1
	5. Pneumonia and Influenza	1,018	256.4
	All Causes	23,585	5,941.0

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

2 Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

[4] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.17

Leading Causes of Death and Cause-Specific Rates by Age

Michigan Resident Black Males, 1992

Age	Rank and Cause of Death	Number[1]	Rate[2,3,4]
All Ages	1. Diseases of the Heart	1,746	287.9
	2. Malignant Neoplasms	1,464	241.4
	3. Homicide	578	95.3
	4. Accidents	283	46.7
	5. Cerebrovascular Diseases	273	45.0
	All Causes	6,518	1,074.8
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	242	1,562.8
	2. Sudden Infant Death Syndrome	51	329.4
	3. Congenital Anomalies	28	180.8
	4. Pneumonia and Influenza	7	45.2
	5. Homicide	6	38.7
	All Causes	377	2,434.6
1-4 Years	1. Accidents	15	30.3
	2. Homicide	7	14.2
	3. Diseases of the Heart	6	12.1
	4-5. Congenital Anomalies-Malgnant Neoplasms	4	*
	All Causes	52	105.2
5-14 Years	1. Accidents	30	26.6
	2. Homicide	8	7.1
	3. Diseases of the Heart	4	*
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	*
	5. Congenital Anomalies	2	*
	All Causes	58	51.5
15-24 Years	1. Homicide	233	206.3
	2. Accidents	38	33.6
	3. Suicide	35	31.0
	4. Diseases of the Heart	8	7.1
	5-6. Malignant Neoplasms-HTLV-III/LAV Infection (AIDS)	7	6.2
	All Causes	350	309.9
25-34 Years	1. Homicide	164	168.7
	2. HTLV-III/LAV Infection (AIDS)	74	76.1
	3. Accidents	43	44.2
	4. Suicide	27	27.8
	5. Diseases of the Heart	19	19.5
	All Causes	406	417.6
35-49 Years	1. Diseases of the Heart	184	164.1
	2. Malignant Neoplasms	127	113.2
	3. Homicide	120	107.0
	4. HTLV-III/LAV Infection (AIDS)	117	104.3
	5-6. Chronic Liver Disease and Cirrhosis-Accidents	68	60.6
	All Causes	990	882.7
50-64 Years	1. Diseases of the Heart	402	654.5
	2. Malignant Neoplasms	399	649.6
	3. Cerebrovascular Diseases	55	89.5
	4. Chronic Liver Disease and Cirrhosis	46	74.9
	5. Diabetes	42	68.4
	All Causes	1,238	2,015.5
65 and Over	1. Diseases of the Heart	1,118	2,474.9
	2. Malignant Neoplasms	913	2,021.1
	3. Cerebrovascular Diseases	168	371.9
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	109	241.3
	5. Pneumonia and Influenza	102	225.8
	All Causes	3,047	6,745.2

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

[4] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.18

Leading Causes of Death and Cause-Specific Rates by Age

Michigan Resident White Females, 1992

Age	Rank and Cause of Death	Number[1]	Rate[2,3,4]
All Ages	1. Diseases of the Heart	11,655	290.8
	2. Malignant Neoplasms	7,761	193.7
	3. Cerebrovascular Diseases	2,739	68.3
	4. Pneumonia and Influenza	1,250	31.2
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,221	30.5
	All Causes	32,756	817.4
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	162	282.2
	2. Congenital Anomalies	82	142.8
	3. Sudden Infant Death Syndrome	43	74.9
	4. Accidents	12	20.9
	5. Homicide-Pneumonia and Influenza-Meningococcal Infection	3	*
	All Causes	331	576.6
1-4 Years	1. Accidents	17	7.7
	2. Malignant Neoplasms	6	2.7
	3. Congenital Anomalies	5	*
	4-5. Certain Conditions Originating in the Perinatal Period-Benign Neoplasms	3	*
	All Causes	51	23.2
5-14 Years	1. Accidents	35	6.5
	2. Malignant Neoplasms	16	3.0
	3. Congenital Anomalies	6	1.1
	4. Pneumonia and Influenza	3	*
	5-7. Homicide-Diseases of the Heart- Certain Conditions Originating in the Perinatal Period	2	*
	All Causes	87	16.2
15-24 Years	1. Accidents	95	16.8
	2. Malignant Neoplasms	28	5.0
	3. Homicide	20	3.5
	4. Suicide	18	3.2
	5. Diseases of the Heart	10	1.8
	All Causes	216	38.2
25-34 Years	1. Accidents	93	13.9
	2. Malignant Neoplasms	87	13.0
	3. Suicide	35	5.2
	4. Diseases of the Heart	26	3.9
	5. Homicide	19	2.8
	All Causes	388	58.2
35-49 Years	1. Malignant Neoplasms	487	59.1
	2. Diseases of the Heart	154	18.7
	3. Accidents	85	10.3
	4. Cerebrovascular Diseases	52	6.3
	5. Suicide	48	5.8
	All Causes	1,190	144.5
50-64 Years	1. Malignant Neoplasms	1,649	299.9
	2. Diseases of the Heart	820	149.1
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	166	30.2
	4. Cerebrovascular Diseases	163	29.6
	5. Diabetes	114	20.7
	All Causes	3,599	654.5
65 and Over	1. Diseases of the Heart	10,638	1,805.8
	2. Malignant Neoplasms	5,487	931.4
	3. Cerebrovascular Diseases	2,511	426.2
	4. Pneumonia and Influenza	1,159	196.7
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,033	175.4
	All Causes	26,892	4,564.9

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

[4] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.19
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident Black Females, 1992

Age	Rank and Cause of Death	Number[1]	Rate[2,3,4]
All Ages	1. Diseases of the Heart	1,727	249.6
	2. Malignant Neoplasms	1,151	166.4
	3. Cerebrovascular Diseases	334	48.3
	4. Diabetes Mellitus	231	33.4
	5. Certain Conditions Originating in the Perinatal Period	183	26.4
	All Causes	5,348	772.9
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	180	1,198.1
	2. Sudden Infant Death Syndrome	37	246.3
	3. Congenital Anomalies	28	186.4
	4. Accidents	4	*
	5-6. Pneumonia and Influenza-Septicaemia	3	*
	All Causes	277	1,843.7
1-4 Years	1. Accidents	11	22.7
	2. Homicide	10	20.6
	3. Congenital Anomalies	4	*
	4. Certain Conditions Originating in the Perinatal Period	3	*
	5-6. Malignant Neoplasms-Pneumonia and Influenza	2	*
	All Causes	39	80.5
5-14 Years	1. Accidents	14	12.6
	2. Homicide	6	5.4
	3-4. Malignant Neoplasms-Congenital Anomalies	4	*
	5. Pneumonia and Influenza	2	*
	All Causes	37	33.4
15-24 Years	1. Homicide	42	34.9
	2. Accidents	20	16.6
	3. Malignant Neoplasms	7	5.8
	4-6. Complications of Pregnancy, Childbirth and the Puerperium-Pneumonia and Influenza-Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	*
	All Causes	105	87.2
25-34 Years	1. Homicide	38	32.0
	2. Malignant Neoplasms	25	21.0
	3. Accidents	17	14.3
	4. HTLV-III/LAV Infection (AIDS)	14	11.8
	5. Diseases of the Heart	8	6.7
	All Causes	174	146.4
35-49 Years	1. Malignant Neoplasms	131	96.6
	2. Diseases of the Heart	94	69.3
	3. Chronic Liver Disease and Cirrhosis	40	29.5
	4. HTLV-III/LAV Infection (AIDS)	33	24.3
	5. Cerebrovascular Diseases	32	23.6
	All Causes	552	407.1
50-64 Years	1. Malignant Neoplasms	325	425.3
	2. Diseases of the Heart	289	378.2
	3. Diabetes Mellitus	59	77.2
	4. Cerebrovascular Diseases	55	72.0
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	24	31.4
	All Causes	967	1,265.4
65 and Over	1. Diseases of the Heart	1,329	2,004.4
	2. Malignant Neoplasms	657	990.9
	3. Cerebrovascular Diseases	241	363.5
	4. Diabetes Mellitus	154	232.3
	5. Pneumonia and Influenza	85	128.2
	All Causes	3,196	4,820.1

[1] Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

[2] Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

[3] Rate per 100,000 population.

[4] 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

COMMUNICABLE DISEASE DEATHS

Although comprising a smaller proportion of deaths than they have in the past, communicable disease deaths continue to be a public health concern. In 1992, deaths from all infectious and parasitic diseases numbered 1,512 (Table 2.20). The number of deaths due to septicemia increased from 555 deaths in 1991 to 622 deaths in 1992, but the percentage of communicable disease deaths due to septicemia decreased from 42.4 percent in 1991 to 41.1 in 1992.

There were 573 deaths (37.9 percent) attributable to AIDS. This was a 23.2 percent increase in the number of deaths due to AIDS since 1991 when there were 465 deaths. There were 373 and 329 deaths due to AIDS reported in 1990 and 1989, respectively.

Deaths due to such diseases as diphtheria, scarlet fever, streptococcal sore throat, small pox, typhoid fever, measles, poliomyelitis and others have been virtually eliminated not only in Michigan, but across the nation. Table 4.7 illustrates trends in deaths from the major communicable diseases.

Table 2.20
Deaths from Selected Infectious and Parasitic Diseases
Michigan Residents, 1992

ICD List[1] Number	Cause of Death	Frequency
038	Septicemia	622
042-044	HTLV-III/LAV Infection (AIDS)	573
070	Viral Hepatitis	55
010-018	Tuberculosis	49
110-118	Mycoses	47
135	Sarcoidosis	27
136.3	Pneumocystosis	20
046	Slow Virus Infection of Central Nervous System	17
137	Late Effects of Tuberculosis	7
036	Meningococcal Infection	5
040.0	Gas Gangrene	3
052	Chickenpox	3
054	Herpes Simplex	3
053	Herpes Zoster	2
Residual 000-139	All Other Infectious and Parasitic Diseases	79
Total		1,512

[1] Detailed list of the 9th revision of the International Classification of Diseases, WHO.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

YEARS OF POTENTIAL LIFE LOST BELOW AGE 65

Another measure of the impact that causes of death have on a population, the years of potential life lost below age 65, is used by the National Centers for Disease Control. The number of years of potential life lost is calculated as the number of years between the age at death and 65 years of age for persons dying before their 65th year.

Table 2.21 includes the years of potential life lost to the Michigan population in 1992 for the ten leading causes of death and selected other causes, as well as the rankings of these causes based on years of potential life lost for the United States.

The ranking of the leading causes of years of potential life lost was different from the ranking of numbers of deaths presented in Table 2.14. Diseases of the heart was the leading cause of death but was the fourth leading cause of years of potential life lost below age 65. Malignant neoplasms, with 70,958 total years lost in Michigan, was the leading cause of years of potential life lost below age 65 in Michigan but was the second leading cause of death. Accidents and adverse effects, which was the fifth leading cause of death, was the second leading cause of years of potential life lost. Chronic obstructive pulmonary disease, diabetes mellitus and pneumonia and influenza which were among the ten leading causes of death, were not among the ten leading causes of years of potential life lost below age 65.

Rankings of the leading causes of potential life lost were reasonably similar for Michigan and the United States with the exception of AIDS. For Michigan, AIDS was the 8th leading cause of years of potential life lost and 5th in the United States, up from 9th and 6th respectfully in 1991.

Table 2.21
Years of Potential Life Lost Below Age 65
Due to the Ten Leading Causes of Death and Selected Other Causes
Michigan Residents, 1992

Rank	Cause of Death	Years of Potential Life Lost			U.S.[2] Rank
		Total[1]	Male	Female	
1	Malignant Neoplasms	70,958	36,188	34,770	2
2	Accidents and Adverse Effects	63,140	45,379	17,761	1
3	Homicide/Suicide	59,972	48,311	11,661	3
4	Diseases of the Heart	52,070	37,079	14,991	4
5	Prematurity[3]	25,463	14,312	11,087	7
6	Congenital Anomalies	20,980	11,595	9,321	6
7	Sudden Infant Death Syndrome	15,731	10,385	5,346	8
8	HTLV-III/LAV Infection(AIDS)	15,066	13,274	1,792	5
9	Chronic Liver Disease and Cirrhosis	9,814	6,764	3,050	10
10	Cerebrovascular Diseases	9,226	4,911	4,315	9
11	Diabetes Mellitus	6,432	3,827	2,605	12
12	Pneumonia and Influenza	6,252	3,397	2,855	11
13	Chronic Obstructive Pulmonary Diseases and Allied Conditions	4,799	2,662	2,137	13
	All Other	84,022	48,160	35,862	

[1] Total includes data for individuals with sex unspecified.

[2] U.S. rankings based on a 10 percent sample of provisional data.

[3] Codes 765 and 769, detailed list of the 9th revision of the International Classification of Diseases, WHO.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

INFANT DEATHS

Trends Of the 78,916 deaths occurring to Michigan residents in 1992, 1,460 occurred to individuals less than one year of age. The rate of death for infants under the age of one year has dropped considerably since 1900. In that year there were 157.1 infant deaths for every 1,000 live births. This means that about 16 of every 100 infants did not survive their first year (Figure 2.7). This rate fell below 100 by 1914 (96.8), to less than 70 by 1927 (67.7), and to less than 50 by 1935 (47.7). During the 1940's the Michigan infant death rate declined from 40.6 in 1940 to 28.9 in 1949.

Relative declines in the infant death rate slowed considerably in the 1950's and 1960's. It was not until 1971 that the rate dropped below 20 to 19.5. The rate of decline between 1970 and 1980 compares favorably with the rate of decline observed before 1950. Between 1980 and 1992 the rate fluctuated, slowly declining from 12.8 to 10.2 in 1992 (Table 2.22).

Table 2.22

Infant Deaths and Infant Death Rates

Michigan and United States Residents

Selected Years, 1950 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
103,825	28.6	1950	4,230	26.4
110,873	26.0	1960	4,704	24.1
74,667	20.0	1970	3,492	20.3
45,526	12.6	1980	1,851	12.8
40,030	10.6	1985	1,575	11.4
38,891	10.4	1986	1,565	11.4
38,408	10.1	1987	1,538	10.9
38,910	10.0	1988	1,542	11.0
39,655	9.8	1989	1,645	11.1
38,351	9.2	1990	1,638	10.7
36,766	8.9	1991	1,554	10.4
34,400Pr.	8.5Pr.	1992	1,460	10.2

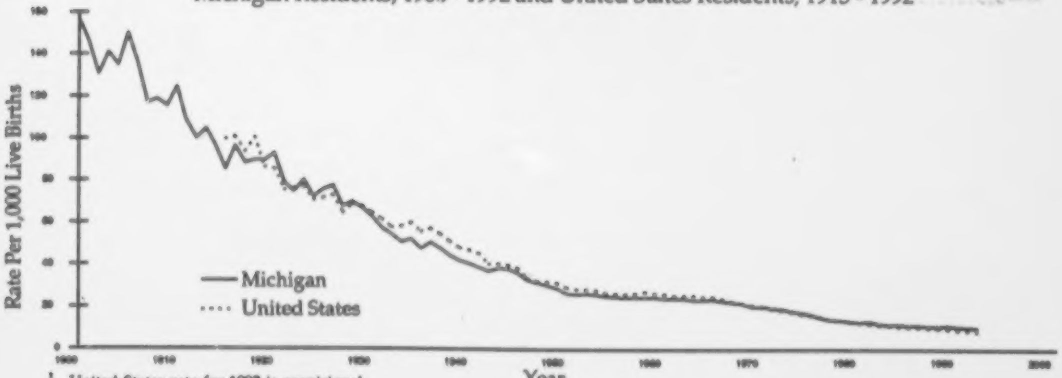
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Michigan and United States Comparison During the period 1915-1928, the rate for Michigan was above that for the United States 9 of 14 years. From 1929 through 1969, Michigan's infant death rate was consistently below the national statistic. From 1970 through 1975 the infant mortality rate in Michigan was slightly higher than the rate for the nation. From 1976 through 1980 the rates for the state and nation were similar. Since 1980 the rate for Michigan has been 5 to 17 percent above the national rate. The provisional rate for the United States in 1992

Figure 2.7

Infant Mortality Rates

Michigan Residents, 1900 - 1992 and United States Residents, 1915 - 1992[1]



[1] United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

was 8.5 infant deaths per 1,000 live births. The Michigan rate of 10.2 was 20.0 percent higher than the national provisional rate in 1992 (Table 2.21).

Early Infant Deaths Table 2.23 shows the numbers of infant deaths and infant death rates by age at death for the period 1970-1992. The number of infants who died during the first week of life in 1992 (821) is greater than the number of deaths of infants aged 7-364 days (639). In 1992, 65.9 percent of all infant deaths occurred within the first four weeks of life and 44.4 percent occurred in the first day.

A review of Table 2.23 reveals that the 20.3 percent decline in the infant mortality rate since 1980 stems largely from reductions in the rate of death for those under 1 day and between 1 and 6 days of age.

Table 2.23
Infant Deaths and Infant Death Rates by Age at Death
Michigan Residents, Selected Years, 1970 - 1992

Year	Age at Death									
	Total Infant Death		<1 Day		1-6 Days		7 - 27 Days		28 - 364 Days	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1970	3,492	20.3	1,367	8.0	1,095	6.4	221	1.3	809	4.7
1975	2,205	16.5	856	6.4	461	3.4	246	1.8	642	4.8
1980	1,851	12.8	790	5.4	310	2.1	184	1.3	567	3.9
1985	1,575	11.4	697	5.1	217	1.6	157	1.1	504	3.7
1986	1,565	11.4	680	4.9	237	1.7	162	1.2	486	3.5
1987	1,538	10.9	660	4.7	217	1.5	152	1.1	509	3.6
1988	1,542	11.0	685	4.9	213	1.5	170	1.2	474	3.4
1989	1,645	11.1	703	4.7	208	1.4	159	1.1	575	3.9
1990	1,638	10.7	673	4.4	219	1.4	181	1.2	565	3.7
1991	1,554	10.4	663	4.4	182	1.2	158	1.1	551	3.7
1992	1,460	10.2	648	4.5	173	1.2	141	1.0	498	3.5

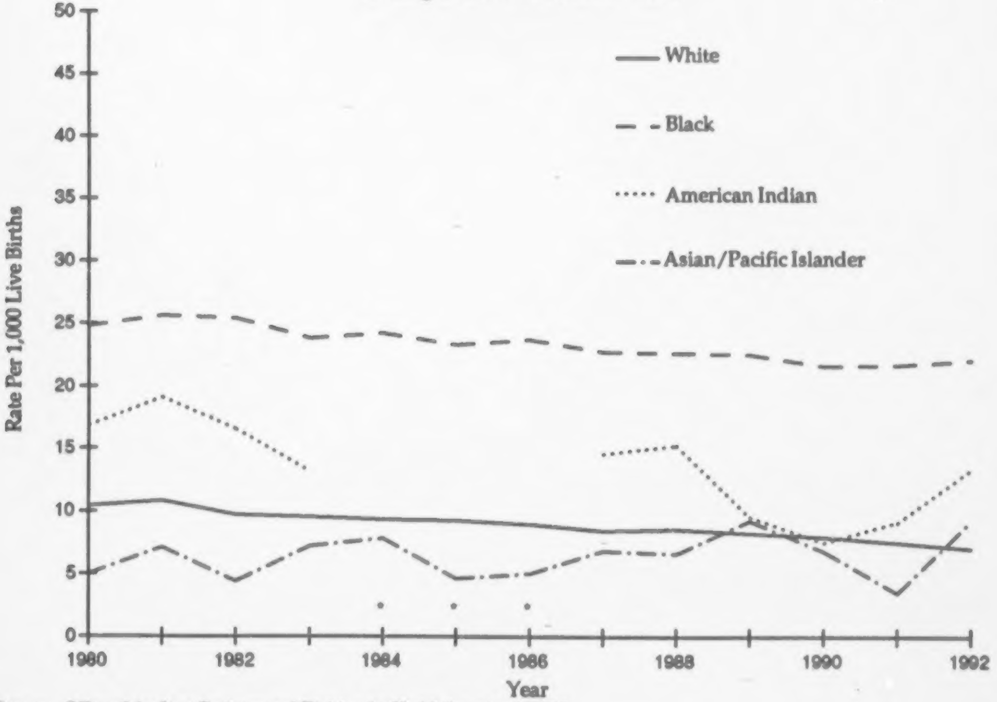
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Trends in Infant Deaths by Race Infant death rates for white, black, American Indians and Asian and Pacific Islanders are graphically displayed in Figure 2.8. The rates used in this graph were calculated using the race of the mother for live births.

Black infant death rates were higher than rates for the other racial groups throughout the period. Where American Indian infant death rates could be calculated, they were higher than rates for white infants. Asian and Pacific Islander infant mortality rates were usually lower than rates for white infants.

The white infant mortality rate dropped 62.2 percent between 1970 and 1992, while for black infants the decline was 27.8 percent. The rate for black infants of 30.6 in 1970 was 65.4 percent higher than that for white infants (18.5). By 1992 the mortality rate for black infants (22.1) was 3.2 times higher than the rate for white infants (7.0) due to the slower decline in the mortality rates experienced by black infants than white infants during the twenty-three years.

Figure 2.8
Infant Death Rates by Race
Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Death Rates In Table 2.24 infant, hebdomadal, fetal and perinatal deaths are presented by race and ancestry. The infant mortality rates for American Indian infants and infants of Hispanic and Arab ancestry were 90.0, 27.1 and 21.4 percent higher than the rate for white infants.

Hebdomadal Death Rates The death rate during the first week of life was 3.6 times higher for black infants than white infants. It was somewhat higher for Hispanic and Arab infants than white infants.

Fetal Death Rates The fetal death rates were slightly higher for births to black mothers than white mothers. Fetal death rates were lowest for births to Arab and Hispanic mothers, while the rate for births to American Indian mothers was over twice the rate for births to white mothers.

Perinatal Death Rates Perinatal deaths are fetal deaths plus hebdomadal deaths. Perinatal death rates were 2.2 and 1.7 times higher for fetuses and infants born to black and American Indian mothers, respectively, than white mothers. Perinatal death rates were lowest for fetuses and infants born to Hispanic mothers.

Table 2.24

Infant, Hebdomadal, Fetal and Perinatal Death Rates[1] by Race and Ancestry

Michigan Residents, 1992

Race/Ancestry	Live[2] Births	Infant Deaths		Hebdomadal Deaths[3]		Fetal Deaths		Perinatal Deaths	
		Number[4]	Rate	Number[4]	Rate	Number[5]	Rate	Number[6]	Rate
All Races	143,827	1,460	10.2	821	5.7	755	5.2	1,576	10.9
White	111,458	781	7.0	414	3.7	548	4.9	962	8.6
Black	29,656	656	22.1	396	13.4	173	5.8	569	19.1
American Indian	750	10	13.3	3	*	8	10.6	11	14.5
Asian/Pacific Islander	1,416	3	*	3	*	10	7.0	13	9.1
Other Non-White	57	1	*	1	*	-	-	-	-
Unknown	490	9	18.4	4	*	16	31.6	20	39.5
Arab	2,346	20	8.5	12	5.1	11	4.7	23	9.8
Hispanic	4,293	38	8.9	17	4.0	16	3.7	33	7.7

[1] Rates calculated using live births by race/ancestry of mother as denominator.

[2] Mother's race/ancestry on birth certificate.

[3] Death at age zero to six days.

[4] Infants race/ancestry on death certificate.

[5] Mother's race/ancestry on fetal death certificate.

[6] Mother's race/ancestry on fetal death certificate, infant's race/ancestry on death certificate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Causes of Infant Deaths Michigan resident infant deaths in 1992 are listed by cause of death classification and age at death in Tables 2.25-2.27. Disorders relating to short gestation and unspecified low birth weight was listed as the cause of 283 deaths and was the specific disease category most frequently reported. Congenital anomalies caused the death of 248 infants, while sudden infant death syndrome was responsible for 243 infant deaths in 1992. Over half of all infant deaths were attributed to these three conditions in 1992.

Causes of Death in First Day of Life For those infant deaths which occurred during the first day of life, over half were attributed to disorders relating to short gestation and unspecified low birthweight, respiratory distress syndrome or other respiratory conditions of newborn. About 1 in 6 deaths in the first day of life were due to congenital anomalies.

Causes of Neonatal Deaths The leading causes of death between 1 to 27 days of life were congenital anomalies and respiratory distress syndrome.

Causes of Postneonatal Deaths Sudden infant death syndrome was reported as the cause of one half of the deaths to infants from 1-5 months of age and was the leading cause from 6-11 months of age. Congenital anomalies was the second leading cause during these time periods.

Causes of Death by Race Disorders related to short gestation, respiratory distress syndrome and other respiratory conditions of the newborn were the causes of death for 42.8 percent of the black infants but only 25.5 percent of the white infants (Table 2.26). The rate of infant deaths due to congenital anomalies for black infants was 18.3 percent higher than the rate for white infants.

Causes of Death for Male and Female Infants The death rate for male infants was 30.2 percent greater than that for female infants (Table 2.27). The death rate for males due to sudden infant death syndrome was 88.1 percent greater than rates for females. Death rates due to accidents were higher for female infants, but deaths due to other tabulated causes were higher for male infants.

Table 2.25

Infant Deaths by Age at Death and Underlying Cause

Michigan Residents, 1992

ICD - 9 CODE	Cause of Death	Age at Death					
		Total <1 Year	<1 Day	1-6 Days	7-27 Days	1-5 Months	6-11 Months
765	Disorders relating to short gestation and unspecified low birthweight	283	264	8	2	9	-
740-759	Congenital anomalies	248	103	48	33	46	18
798.0	Sudden infant death syndrome	243	-	2	12	210	19
769	Respiratory distress syndrome	110	46	40	18	5	1
770	Other respiratory conditions of newborn	88	38	13	15	18	4
E800-949	Accidents and adverse effects	29	-	-	3	14	12
E960-969	Homicide	13	1	-	1	6	5
Residual	All other causes	446	196	62	57	112	19
	Total	1,460	648	173	141	420	78

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.26

Infant Deaths and Infant Death Rates by Race[1] and Underlying Cause

Michigan Residents, 1992

ICD - 9 Code	Cause of Death	Race							
		Total[2]		White		Black		All Other	
		Number	Rate[3]	Number	Rate[3]	Number	Rate[3]	Number	Rate[3]
765	Disorders relating to short gestation and unspecified low birthweight .	283	196.8	93	83.4	189	637.3	1	*
740-759	Congenital anomalies	248	172.4	181	162.4	57	192.2	10	449.8
798.0	Sudden infant death syndrome . . .	243	169.0	149	133.7	88	296.7	6	269.9
769	Respiratory distress syndrome	110	76.5	62	55.6	48	161.9	-	-
770	Other respiratory conditions of newborn	88	61.2	44	39.5	44	148.4	-	-
E800-949	Accidents and adverse effects	29	20.2	23	20.6	6	20.2	-	-
E960-969	Homicide	13	9.0	5	*	8	27.0	-	-
Residual	All other causes	446	310.1	224	201.0	216	728.4	6	269.9
	Total	1,460	1,015.1	781	700.7	656	2,212.0	23	1,034.6

[1] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

[2] Records with race not stated are included only in total columns.

[3] Rates per 100,000 live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.27

Infant Deaths and Infant Death Rates by Sex of Infant and Underlying Cause

Michigan Residents, 1992

ICD - 9 CODE	Cause of Death	Sex of Infant					
		Total[1]		Male		Female	
		Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
765	Disorders relating to short gestation and unspecified low birthweight	283	196.8	159	208.3	123	168.2
740-759	Congenital anomalies	248	172.4	133	174.2	114	155.9
798.0	Sudden infant death syndrome	243	169.0	161	210.9	82	112.1
769	Respiratory distress syndrome	110	76.5	62	81.2	48	65.6
770	Other respiratory conditions of newborn	88	61.2	55	72.0	33	45.1
E800-949	Accidents and adverse effects	29	20.2	13	17.0	16	21.9
E960-969	Homicide	13	9.0	8	10.5	5	*
Residual	All other causes	446	310.1	249	326.2	197	269.4
	Total	1,460	1,015.1	840	1,100.4	618	845.0

[1] Records with sex not stated are included only in total columns.

[2] Rates per 100,000 live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Birth Characteristics In previous years infant deaths were characterized for infants born in a particular year. However, since infants born in a particular year, such as 1992, may experience death in either 1992 or 1993, data reported this way were reported a year later than other data in this publication series. For example, the infant deaths for the 1990 birth cohort appeared in the 1991 Michigan Health Statistics report. This year infant deaths will be characterized for infants dying in 1992. They may have been born in 1991 or 1992. The birth information is obtained from their birth certificate. The rates are calculated using birth characteristics of 1992 live births and 1992 infant deaths.

Infant Deaths by Mothers Age Infant deaths displayed a parabolic relationship with mother's age for infants born to white mothers in 1992. The rates were lower for infants born to white mothers 20 to 39 years of age, than for infants born to white mothers under 20 and over 39 years of age. The mortality rates for infants born to black mothers between 15 and 39 years of age were lower than the rates for infants born to black mothers less than 15 or over 39 years of age. Rates for infants born to black mothers age 15 to 19 were slightly lower than the rates for infants born to black mothers age 20-24. Rates for black infants were significantly above those for the white group in all categories with a sufficient number of events to calculate rates.

Table 2.28

Infant Deaths, Live Births and Infant Death Rates by Age and Race[1,2] of Mother

Michigan Residents, 1992

Age of Mother in Years	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
All Ages	1,460	143,827	10.2	781	111,458	7.0	656	29,656	22.1	23	2,223	10.3
< 15	12	373	32.2	3	116	*	9	250	36.0	-	3	-
15-19	246	18,341	13.4	91	10,689	8.5	151	7,379	20.5	4	234	*
20-24	428	37,446	11.4	199	27,108	7.3	225	9,743	23.1	4	520	*
25-29	364	43,246	8.4	227	35,995	6.3	128	6,391	20.0	9	701	12.8
30-39	372	42,695	8.7	241	36,181	6.7	126	5,602	22.5	5	519	*
40 +	22	1,664	13.2	14	1,324	10.6	7	279	25.1	1	243	*
Not Stated	16	62	258.1	6	45	133.3	10	12	833.3	-	3	-

[1] Race not stated included in total columns only.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Adequacy of Prenatal Care Infant death rates increased when the mother received less adequate prenatal care as measured by the Kessner Index (Table 2.29). The infant death rate was 3.6 times greater for mothers with inadequate care (25.9 deaths per 1,000 live births) than for mothers with adequate care (7.2 deaths per 1,000 live births) in 1992.

The pattern was similar for both white and black infants. When the mother received adequate care based on the number of visits, the month prenatal care began and the length of gestation, the infant death rate for black infants (16.0) was still 2.9 times greater than for infants born to white mothers (5.6 deaths per 1,000 live births).

Table 2.29
Infant Deaths, Live Births and Infant Death Rates
by Level of Prenatal Care and Race[1,2]
Michigan Residents, 1992

Level of Care (Kessner Index[3])	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
Total	1,460	143,827	10.2	781	111,458	7.0	656	29,656	22.1	23	2,223	10.3
Adequate	761	105,150	7.2	489	87,103	5.6	260	16,251	16.0	12	1,521	7.9
Intermediate	333	24,788	13.4	151	16,676	9.1	177	7,572	23.4	5	466	*
Inadequate	344	13,301	25.9	130	7,266	17.9	208	5,682	36.6	6	224	26.8
Unknown	22	588	37.4	11	413	26.6	11	151	*	-	12	-

[1] Race not stated included in total columns only.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

[3] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Birth Weight Infant death rates by race, birth weight and age at death are displayed in Table 2.30. While the overall infant death rate for black infants was 3.2 times that of white infants, the rates for black and white infants born weighing less than 750 grams were the same, (about 3 deaths out of every 4 births). The rates for black infants weighing 750-1,499 and 1,500 to 2,499 grams were lower than the rate for their white counterparts. For infants weighing 2,500 grams or more the rate for black infants was 2.2 times the rate for white infants. A large part of the difference between infant death rates for white and black infants was due to the fact that a greater proportion of the infants born to black mothers were born at weights below 2,500 grams (14.9 percent for infants born to black mothers compared to 5.6 percent for infants born to white mothers).

Differentials in death rates by race for deaths under 28 days (neonatal deaths) and from 28-364 days (postneonatal deaths)

Table 2.30

Live Births, Infant Deaths and Infant Death Rates by Birth Weight, Age at Death and Race[1,2]

Michigan Residents, 1992

Birth Weight	Race of Infant	Live Births	Age at Death					
			Under 1 Year		Under 28 Days		28-364 Days	
			Number	Rate	Number	Rate	Number	Rate
Total	All Races	143,827	1,460	10.2	962	6.7	498	3.5
	White	111,458	781	7.0	497	4.5	284	2.5
	Black	29,656	656	22.1	452	15.2	204	6.9
	All Other	2,223	23	10.3	13	5.8	10	4.5
Less Than 750 Grams	All Races	817	603	738.1	567	694.0	36	44.1
	White	380	260	684.2	252	663.2	8	21.1
	Black	424	334	787.7	306	721.7	28	66.0
	All Other	11	9	818.2	9	818.2	-	-
750-1,499 Grams	All Races	1,381	166	120.2	121	87.6	45	32.6
	White	758	95	125.3	78	102.9	17	22.4
	Black	601	70	116.5	42	69.9	28	46.6
	All Other	17	1	*	1	*	-	-
1,500-2,499 Grams	All Races	8,631	203	23.5	110	12.7	93	10.8
	White	5,103	120	23.5	74	14.5	46	9.0
	Black	3,398	77	22.7	33	9.7	44	12.9
	All Other	106	6	56.6	3	*	3	*
2,500 Grams Or Greater	All Races	132,779	457	3.4	135	1.0	322	2.4
	White	105,057	296	2.8	84	0.8	212	2.0
	Black	25,182	154	6.1	51	2.0	103	4.1
	All Other	2,086	7	3.4	-	-	7	3.4
Unknown Birthweight	All Races	219	31	141.6	29	132.4	2	*
	White	160	10	62.5	9	56.3	1	*
	Black	51	21	411.8	20	392.2	1	*
	All Other	3	-	-	-	-	-	-

[1] Race not stated included in total rows only.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

departed somewhat from the pattern noted for all infant deaths. For infants weighing 750-1,499 grams, the neonatal rates for black infants were lower than for white infants. The postneonatal rate for these black infants was higher than the comparable rate for white infants. The neonatal rate for white infants weighing 1,500-2,499 grams was 49.5 percent greater than the comparable rate for black infants while the postneonatal death rate for black infants in this birth weight category exceeded the comparable rate for white infants by 43.3 percent. For infants weighing 2,500 grams or more at birth, the neonatal and postneonatal rates were about twice as high for black infants than white infants.

Causes of Death by Maternal Smoking Status and Race The infant mortality rate for infants born to white mothers who reportedly smoked or used tobacco products during their pregnancy was 54.5 percent higher than the rate for infants born to white mothers who reportedly did not smoke during their pregnancy. Similarly, the rate for infants born to black mothers who reportedly smoked was 69.6 percent higher.

Death rates are almost always higher for each cause if the mother smoked during her pregnancy. The rate of death due to disorders related to short gestation were 12.5 percent higher if the white mother smoked and SIDS rates were 3.6 times higher. Infants born to black mothers who smoked, had death rates 55.4 percent higher for deaths due to disorders related to short gestation and 2.3 times higher for deaths due to SIDS than rates for infants born to non-smoking black mothers.

Table 2.31

Infant Deaths and Infant Death Rates[1] by Race[2] of Mother Smoking Status[3] During Pregnancy and Underlying Cause of Death[4]

Michigan Residents, 1992

ICD - 9 Code	Cause of Death	All Races[5]				White				Black			
		Smokers		Non-smokers		Smokers		Non-smokers		Smokers		Non-smokers	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
765	Disorders relating to short gestation and unspecified low birthweight	69	2.3	219	1.9	20	0.8	79	0.9	49	8.7	135	5.6
740-759	Congenital anomalies	65	2.2	195	1.7	48	2.0	141	1.6	15	2.7	51	2.1
798.0	Sudden infant death syndrome	109	3.7	144	1.3	68	2.9	68	0.8	38	6.8	71	3.0
769	Respiratory distress syndrome	27	0.9	125	1.1	15	0.6	70	0.8	12	2.1	54	2.2
770	Other respiratory conditions of newborn	33	1.1	77	0.7	14	0.6	40	0.5	19	3.4	37	1.5
E800-949	Accidents and adverse effects	13	0.4	20	0.2	11	0.5	12	0.1	2	*	8	0.3
E960-969	Homicide	1	*	9	0.1	1	*	4	*	-	-	5	*
Residual	All other causes	136	4.6	331	2.9	66	2.8	179	2.0	69	12.3	148	6.2
	Total	453	15.3	1,126	9.9	243	10.3	593	6.8	204	36.3	514	21.4

[1] Rates per 1,000 live births.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

[3] Records with smoking status not stated are included in non-smoker columns

[4] Records with cause of death pending are included only in the total row.

[5] Records with race not stated are included only in total columns.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Perinatal Deaths by Maternal Age and Race For total births in 1992, Michigan resident perinatal deaths numbered 1,576 and the perinatal death rate was 10.9 (Table 2.32). As with infant death rates, perinatal death rates vary considerably with race and age of mother. The overall perinatal mortality rate for black fetuses and infants was over 2.2 times the rate for white fetuses and infants.

There was an increased risk of a perinatal death for white mothers under 20 years of age and over 39 years.

Perinatal Deaths by Adequacy of Prenatal Care The perinatal death rates increased for mothers with less than adequate prenatal care (Table 2.33). The death rate was 3.7 times higher for mothers with inadequate care than for mothers with adequate care (28.9 vs. 7.8 deaths per 1,000 total births). The perinatal death rate for fetuses and infants born to black women with adequate care was nearly double the comparable rate for fetuses and infants of white women.

Table 2.32
Perinatal Deaths, Total Births and Perinatal Death Rates by Age and Race[1,2] of Mother
Michigan Residents, 1992

Age of Mother in Years	All Races			White			Black			All Other Infants		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
All Ages	1,576	144,582	10.9	962	112,006	8.6	569	29,829	19.1	29	2,241	12.9
< 15	3	374	*	1	116	*	1	250	*	1	4	*
15-19	245	18,450	13.3	116	10,759	10.8	124	7,414	16.7	2	235	*
20-24	393	37,632	10.4	201	27,229	7.4	185	9,803	18.9	6	524	11.5
25-29	397	43,432	9.1	269	36,141	7.4	119	6,426	18.5	7	704	9.9
30-39	463	42,917	10.8	338	36,336	9.3	108	5,626	19.2	13	721	18.0
40 +	25	1,679	14.9	15	1,334	11.2	10	284	35.2	-	50	-
Not Stated	50	98	510.2	22	61	360.7	22	26	846.2	-	3	-

[1] Race not stated included in total columns only.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.33
Perinatal Deaths, Total Births and Perinatal Death Rates by Level of Prenatal Care and Race[1,2] of Mother
Michigan Residents, 1992

Level of Care (Kessner Index[3])	All Races			White			Black			All Other Races		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
Total	1,576	144,582	10.9	962	112,006	8.6	569	29,829	19.1	29	2,241	12.9
Adequate	820	105,548	7.8	582	87,427	6.7	214	16,307	13.1	16	1,531	10.5
Intermediate	335	24,953	13.4	183	16,791	10.9	145	7,617	19.0	6	470	12.8
Inadequate	389	13,478	28.9	182	7,368	24.7	196	5,749	34.1	6	227	26.4
Unknown	32	603	53.1	15	420	35.7	14	156	89.7	1	13	*

[1] Race not stated included in total columns only.

[2] Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

[3] The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MARRIAGE & DIVORCE

SECTION III

MARRIAGE AND DIVORCE

An Overview, 1992

Total Marriages	71,322
Total Divorces and Annulments	40,425
Marriage Rate[1]	15.3
Divorce Rate[1]	8.7
Median Age of the Bride	26
Median Age of the Groom	28
Median Age of Wife at Divorce Decree	34
Median Age of Husband at Divorce Decree	37
Median Duration of Marriage at Divorce Decree	6 Years

[1] Number of persons married or divorced per 1,000 population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 3.1

Marriages and Marriage Rates[1]

Michigan and United States[2] Occurrences
Selected Years, 1900 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
709,000	18.6	1900	23,295	19.2
948,000	20.5	1910	29,039	20.7
1,274,476	23.9	1920	50,805	27.7
1,126,856	18.3	1930	29,482	12.2
1,595,879	24.2	1940	46,342	17.6
1,667,231	22.1	1950	58,180	18.3
1,523,000	17.0	1960	61,090	15.6
2,158,802	21.2	1970	91,933	20.7
2,390,252	21.2	1980	86,898	18.8
2,425,000	20.2	1985	79,022	17.4
2,407,099	20.0	1986	77,815	17.0
2,403,378	19.8	1987	74,418	16.2
2,395,926	19.4	1988	75,386	16.3
2,404,000Pr.	19.4Pr.	1989	76,210	16.4
2,448,000Pr.	19.6Pr.	1990	76,099	16.4
2,371,000Pr.	18.8Pr.	1991	72,747	15.7
2,362,000Pr.	18.4Pr.	1992	71,322	15.3

[1] Number of persons married per 1,000 population.

[2] Beginning with 1978, marriage data for the United States include nonlicensed marriages registered in California. If nonlicensed marriages were included in the 1977 total, the marriage rate would increase from 19.8 to 20.1.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

KEY TRENDS

The number of marriages and divorces occurring in Michigan has increased considerably since 1900. While the frequency of marriage has generally followed the growth of Michigan's population, the rate of persons dissolving their marriages has increased over fourfold since 1900.

The smallest number of marriages in this century was 23,295 in 1900, while the largest number was 94,486 in 1973. In 1992 there were 71,322 marriages, the smallest number since 1963. The marriage rate was 15.3 per 1,000 population, the lowest rate since 1959.

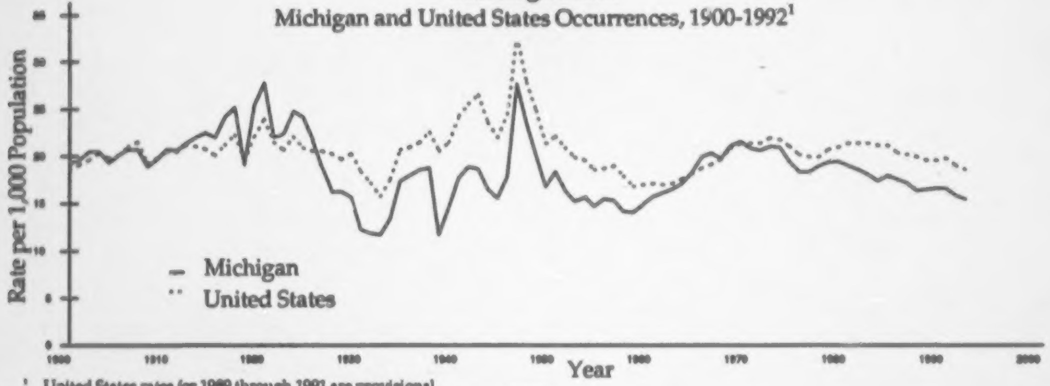
The number of divorces and annulments increased from a low of 2,435 in 1900 to a high of 45,047 in 1980. In 1992 the number of divorces and annulments was 40,425. The divorce rate was 8.7 per 1,000 population.

MARRIAGES

Since 1900 there have been noticeable changes in the marriage rates both nationally and in Michigan (Table 3.1 and Figure 3.1). Both nationally and in Michigan strong historic shifts in rates have been related most notably to the factors of war and the economy. The highest rates observed during this century were for the years immediately following the end of the two World Wars (27.7 in 1920 and 27.6 in 1946). The lowest rates occurred during the Great Depression of the 1930's.

The number of persons married each year per 1,000 population was higher in Michigan than in the country for 19 of the 26 years from 1900 through 1925. Since 1926, Michigan's marriage rate has been lower than the national rate, except during 1964 through 1969.

Figure 3.1
Marriage Rates
Michigan and United States Occurrences, 1900-1992[1]



[1] United States rates for 1989 through 1991 are provisional.
Source: Office of the State Registrar and Division for Health Statistics, MDPH

RESIDENCE OF COUPLES MARRYING IN MICHIGAN

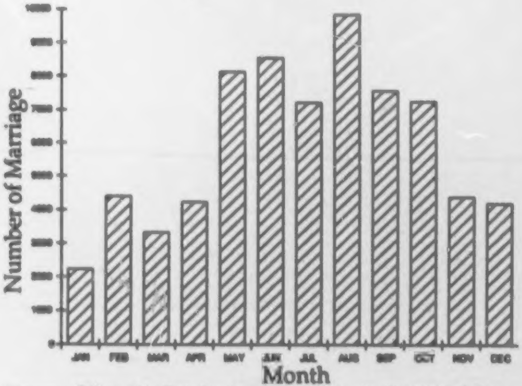
When presenting statistics of births, deaths and fetal deaths it is possible to provide total resident figures due to an interstate agreement for exchange of nonresident event information. Thus, should a Michigan resident give birth in some other state, the state will forward the information to Michigan. No such agreement exists for marriages. This is an important consideration when analyzing marriage statistics. The marriage data presented are drawn from all marriages performed in the state regardless of the couple's residence.

In general, most of the couples marrying in Michigan are residents of the state. For marriages occurring in Michigan in 1992, 95.3 percent of the brides were residents of Michigan, while 93.2 percent of the grooms were residents of the state. These data indicate that the general characteristics of marriages occurring in Michigan should be representative of marriage patterns for Michigan residents.

MONTH OF MARRIAGE

The number of marriages occurring in Michigan varies with the seasons (Figure 3.2). The most popular months for marriages in 1992 were August, June and May, with 9,839 8,549 and 8,126 marriage ceremonies being performed during these months respectively. About 2 out of every 3 marriages occurred in the six months between May and October. Fewer marriages occurred during the winter months. The lowest figure was for January, with 22.8 percent of the number which occurred in August.

Figure 3.2
Marriages by Month
Michigan Occurrences, 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE AT MARRIAGE

Examination of the data in Table 3.2 reveals that females generally marry at a younger age than do males. The number of females who marry before the age of 20 was 2.7 times the corresponding number of males in 1992. Between ages 20 and 24, 28.3 percent more females than males married. Among persons 25 and over, the number of males marrying was greater than females marrying. The median age of brides (26 years) marrying in Michigan was two years lower than the median age for grooms (28 years).

Since 1972, there have been significant declines in the marriage rates for persons of both sexes under the age of 25 years. The largest decline observed was for males under the age of 20 years for whom the marriage rate has dipped 85.5 percent. For individuals between 25 and 44 years of age, the marriage rate for males and females increased. The rates for persons 45 and over were about the same for males and females during these twenty years.

FIRST MARRIAGES

First marriages are an interesting component of all marriages in that they constitute an event that can never be duplicated. The frequency of first marriages reflects the propensity of the population as a whole to enter into marital agreements.

There has been a decline in the number of first marriages between 1982 and 1992. The number of first marriages dropped 15.2 percent for women and 12.2 percent for men (Tables 3.3 and 3.4).

Table 3.2

Number of Marriages and Marriage Rates[1] by Age and Sex

Michigan Occurrences, 1972, 1982 and 1992

Age in Years	Males				Females			
	1972 Rate	1982 Rate	1992 Number	1992 Rate	1972 Rate	1982 Rate	1992 Number	1992 Rate
Under 20[2]	37.2	11.7	1,939	5.4	78.0	31.7	5,239	15.2
20-24	118.6	61.7	17,536	50.0	89.1	66.6	22,494	63.2
25-34	36.3	38.2	31,639	40.9	23.0	29.5	27,610	34.5
35-44	13.2	18.0	12,099	17.6	9.9	12.7	10,609	14.9
45 or Over	6.6	5.8	8,107	6.3	4.3	3.0	5,365	3.4
Total	21.4	17.8	71,322	15.8	20.5	16.9	71,322	14.9
Median Age at Last Birthday	28				26			

[1] Number of persons married per 1,000 population.

[2] 15 - 19 population used to obtain rate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Changes in the frequency of first marriages have varied in different age groups. The greatest decline in first marriages occurred in the under 20 age group for both brides and grooms, between 1982 and 1992. The number of first marriages also declined substantially for brides and grooms in the 20-24 year age group. There were significant increases in the number of first marriages of both brides and grooms between ages 25 and 44.

Between 1982 and 1992 the percentages of marriages which were first marriages increased for each age groups below 45 years of age.

Table 3.3
Number of Marriages of Brides by Age and Order of Marriage
Michigan Occurrences, 1982 and 1992

Age in Years	1982					1992				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	80,032	54,765	68.4	19,814	5,453	71,322	46,446	65.1	18,696	6,163
Under 20	14,017	13,884	99.1	126	2	5,239	5,197	99.2	39	-
20-24	31,001	28,100	90.6	2,778	120	22,494	21,153	94.0	1,291	44
25-29	16,126	9,776	60.6	5,575	770	17,496	13,251	75.7	3,868	374
30-34	7,757	2,117	27.3	4,397	1,241	10,114	4,601	45.5	4,538	973
35-39	4,166	488	11.7	2,572	1,104	6,488	1,495	23.0	3,495	1,498
40-44	2,453	166	6.8	1,503	783	4,121	487	11.8	2,306	1,326
45 or Over	4,506	211	4.7	2,861	1,433	5,365	257	4.8	3,159	1,948
Not Stated	6	4	66.7	2	-	-	-	-	-	-
Median Age at Last Birthday	24	22	-	31	37	26	24	-	34	40

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 3.4
Number of Marriages of Grooms by Age and Order of Marriage
Michigan Occurrences, 1982 and 1992

Age in Years	1982					1992				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	80,032	53,134	66.4	20,994	5,891	71,322	46,641	65.4	18,533	6,139
Under 20	5,323	5,309	99.7	11	1	1,939	1,938	99.9	1	-
20-24	28,514	27,303	95.8	1,177	32	17,536	16,965	96.7	561	7
25-29	19,983	14,887	74.5	4,693	397	19,635	16,886	86.0	2,600	145
30-34	10,075	4,025	40.0	5,014	1,035	12,004	7,183	59.8	4,190	631
35-39	5,748	956	16.6	3,568	1,224	7,307	2,515	34.4	3,715	1,076
40-44	3,268	280	8.6	2,068	920	4,792	743	15.5	2,705	1,344
45 or Over	7,120	374	5.3	4,463	2,281	8,107	410	5.1	4,760	2,936
Not Stated	1	-	0.0	-	1	2	1	50.0	1	-
Median Age at Last Birthday	26	23	-	34	40	28	26	-	37	44

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MEDIAN AGE AT FIRST MARRIAGE

The median age at first marriage declined for both brides and grooms between 1953 and the mid-1960's (Figure 3.3). The initial decline was greater for males than for females.

Grooms were 34 months older than brides at the median in 1953, 23 months older in 1963 and 20 months older in 1968. During the past fifteen years, the median age at first marriage has increased by about the same amount for both males and females. Grooms were 22 months older than brides at the median in 1992.

The median age at first marriage in 1992 was 24 years 3 months for brides and 26 years 1 month for grooms.

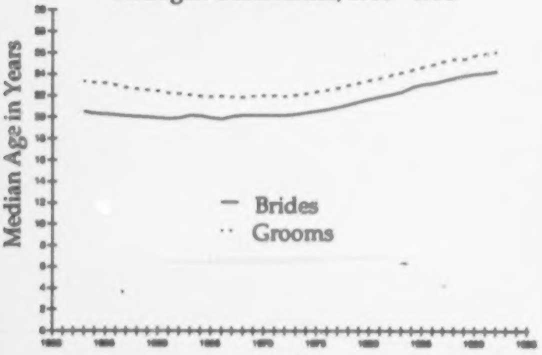
REMARRIAGES

The proportion of all marriages which were remarriages is displayed graphically in Figure 3.4 for the period 1960-1992. Between 1960 and 1965, the proportion of remarriages dropped. Since 1965, this proportion has increased.

The number of remarriages among females decreased by 1.6 percent between 1982 and 1992, while the number of brides who had been married at least three times previously increased by 13.0 percent. Total remarriages for grooms decreased by 8.2 percent, while the number of third or higher order marriages increased (4.2 percent).

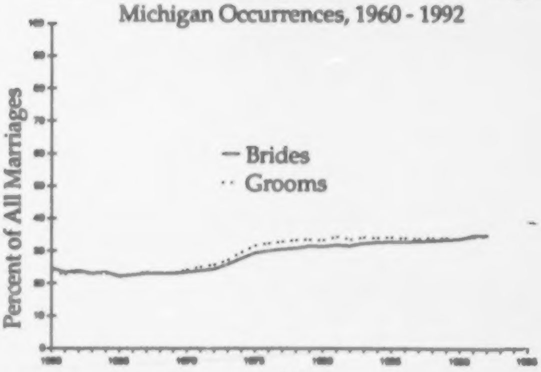
The median age at second and later marragies increased between 1982 and 1992 (Tables 3.3 and 3.4).

Figure 3.3
Median Age at First Marriage by Sex
Michigan Occurrences, 1953 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 3.4
Percent of All Marriages that are Remarriages
Michigan Occurrences, 1960 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

DIVORCES AND ANNULMENTS

The number of reported divorces and annulments reached a record high in 1980, in Michigan and in 1981 in the nation (Table 3.5). Between 1980 and 1985, the Michigan frequency declined. The number then increased to 40,425 in 1992. The 1992 frequency was 10.3 percent below the 1980 frequency. Nationally, the provisional number of divorces in 1992 was a record high figure of 1,215,000.

The number of persons divorced in Michigan per thousand population generally increased from 2.0 in 1900 to the then century high of 5.1 in 1929, then declined between 1930 and 1933 to 3.1 (Figure 3.5). Between 1934 and 1946 the rate generally increased, peaking at 10.2 in 1946. The rate of divorces and annulments decreased to 3.6 in 1958 and increased to a high of 9.8 in 1978. It has fluctuated between 8.3 and 8.7 since 1982.

Table 3.5

Number of Divorces and Annulments

Divorce and Annulment Rates[1]

Michigan and United States Occurrences

Selected Years, 1900 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
56,000	1.5	1900	2,435	2.0
83,000	1.8	1910	3,716	2.6
170,505	3.2	1920	8,679	4.7
195,961	3.2	1930	10,639	4.4
264,000	4.0	1940	12,054	4.6
385,144	5.1	1950	15,979	5.0
393,000	4.4	1960	16,656	4.3
708,000	7.0	1970	29,934	6.7
1,189,000	10.5	1980	45,047	9.7
1,190,000	10.0	1985	38,775	8.5
1,178,000	9.8	1986	39,553	8.7
1,166,000	9.6	1987	39,857	8.7
1,167,000	9.4	1988	40,103	8.7
1,163,000Pr.	9.4Pr.	1989	40,276	8.7
1,175,000Pr.	9.4Pr.	1990	40,568	8.7
1,187,000Pr.	9.4Pr.	1991	40,103	8.6
1,215,000Pr.	9.4Pr.	1992	40,425	8.7

[1] Number of persons whose marriages ended in divorce or annulment per 1,000 population.

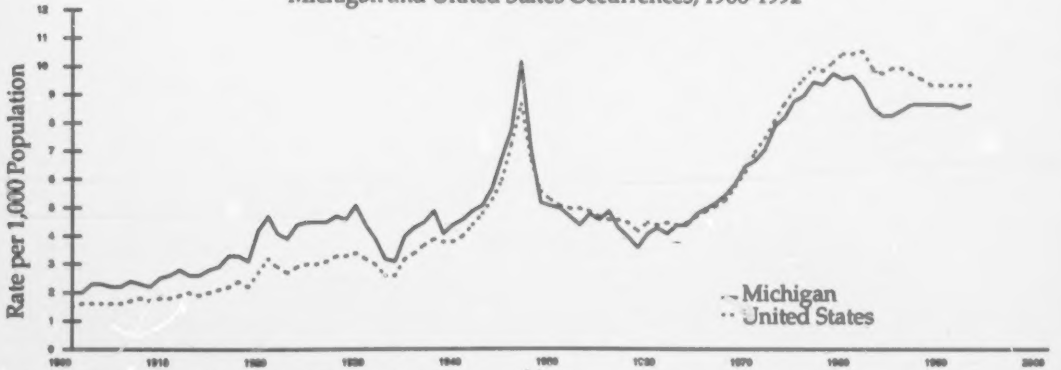
Source: Office of the State Registrar and Division for Health Statistics, MDPH

The national rates generally followed the same pattern, reaching a provisional rate of 9.4 in 1992. Michigan's divorce rate was higher than that for the United States each year from 1900 through 1947. In the following 45 years the Michigan divorce rate has been at or below the national rate 38 times, including each of the past 23 years. The lowest national rate was 1.5 in 1900. The highest national divorce rate during this century was recorded in 1981 (10.6).

Figure 3.5

Divorce Rates

Michigan and United States Occurrences, 1900-1992[1]



[1] United States rates for 1989 through 1992 are provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

The number of children under 18 of couples dissolving marriages in 1992 was at least 39,579 (Table 3.6). This is 20.1 percent below the peak number of 49,555 in 1976. The number of children affected by divorce as a proportion of all children peaked at 18.2 in 1981 (Table 3.6). It has fluctuated between 14.8 and 16.2 per 1,000 children during the last ten years. The average number of children per divorce has, nonetheless, dropped from a high of 1.37 children in 1971 to 0.98 in 1992.

Data for the United States indicate a similar pattern.

Table 3.6

Estimated Number of Children Involved in Divorces and Annulments, Average Number of Children Per Decree, and Rate Per 1,000 Children Under 18 Years of Age

Michigan and United States, Selected Years 1960 - 1992

Michigan			Year	United States		
Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age		Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age
19,209	1.15	6.5	1960	463,000	1.18	7.2
40,596	1.36	12.5	1970	870,000	1.22	12.5
46,603	1.04	16.9	1980	1,174,000	0.98	17.3
45,461	1.05	18.2	1981	1,180,000	0.97	18.7
41,156	1.04	16.9	1982	1,108,000	0.94	17.6
38,712	1.02	16.2	1983	1,091,000	0.94	17.4
37,629	1.00	14.8	1984	1,081,000	0.92	17.2
38,673	1.00	15.3	1985	1,091,000	0.92	17.3
39,378	1.00	15.7	1986	1,064,000	0.90	16.8
39,321	1.00	14.8	1987	1,038,000	0.89	16.3
39,635	0.99	15.0	1988	1,044,000	0.89	16.4
39,897	0.99	15.2	1989	———	—	—
39,792	0.98	16.0	1990	———	—	—
39,000	0.97	15.7	1991	———	—	—
39,579	0.98	15.9	1992	———	—	—

Source: Office of the State Registrar and Division for Health Statistics, MDPH

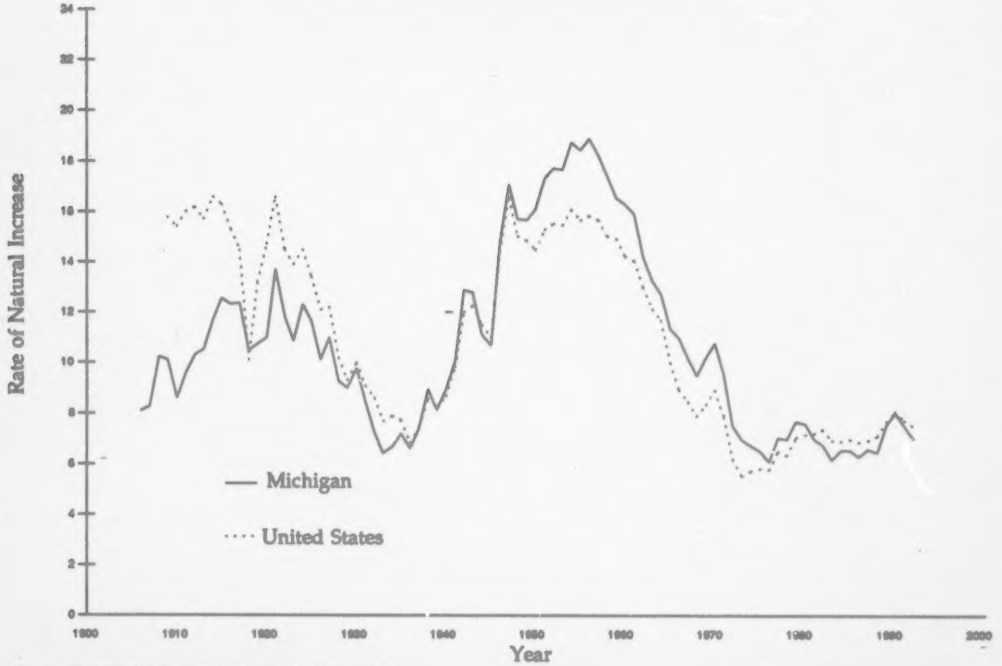
REFERENCE APPENDIX

SECTION IV

Figure 4.1

Rate of Natural Increase[1]

Michigan, 1906 - 1992 and the United States, 1909 - 1992[2]



[1] Excess of live births over deaths per 1,000 population.

[2] Rates for the United States for 1909 - 1932 are based on death rates from the Death Registration States and estimated birth rates for the United States, adjusted for under-registration. For 1933 - 1959 rates are based on registered deaths in the United States and births adjusted for under-registration. After 1959 rates are based on registered births and deaths. 1992 United States data is provisional.

Source: Office of the State Registrar and Division for Health Statistics

Table 4.1

Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces

Michigan, 1900 - 1992

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1900	2,420,982	43,699	32,453	6,866				1,325	452	23,295	2,435
1901	2,459,901	43,221	32,834	6,319				1,501	531	24,079	2,448
1902	2,498,820	45,546	31,472	5,949				1,793	468	25,653	2,828
1903	2,537,739	46,020	33,176	6,488				1,814	427	26,029	2,945
1904	2,576,658	47,508	34,494	6,419				1,911	436	24,918	2,808
1905	2,615,578	46,976	34,679	8,054				2,044	416	26,307	2,825
1906	2,654,497	58,599	37,033	7,952				2,358	400	27,519	3,192
1907	2,693,416	59,029	36,701	6,906				2,358	391	27,940	3,107
1908	2,732,335	64,772	36,761	7,697				2,694	440	25,765	3,020
1909	2,771,254	64,323	36,313	7,443				2,540	405	27,353	3,516
1910	2,810,173	64,109	39,913	7,998				2,559	431	29,039	3,716
1911	2,895,997	65,756	38,007	7,131				2,716	451	29,859	4,125
1912	2,981,821	69,537	38,804	6,985				2,906	396	31,694	3,838
1913	3,067,645	73,058	40,827	7,659				2,953	528	33,529	3,978
1914	3,153,469	76,761	39,906	7,431				3,113	507	35,316	4,395
1915	3,239,293	81,100	40,441	6,943				3,357	488	35,527	4,757
1916	3,325,116	87,062	46,047	8,415				3,689	503	40,143	5,540
1917	3,410,940	89,419	47,236	7,916				3,550	586	42,791	5,627
1918	3,496,764	91,261	54,617	8,197				3,686	709	33,260	5,493
1919	3,582,588	84,062	45,636	7,560				3,361	578	45,579	7,469
1920	3,668,412	92,245	51,982	8,587				3,770	795	50,805	8,679
1921	3,785,799	96,035	44,186	7,584				3,669	605	41,508	7,676
1922	3,903,186	90,042	43,817	6,730				3,779	551	43,561	7,591
1923	4,020,573	92,956	49,333	7,477				3,657	583	49,569	8,745
1924	4,137,960	98,187	47,304	7,088	4,119	2,969	6,791	3,703	636	49,788	9,400
1925	4,255,347	98,983	49,417	7,498	4,022	3,476	6,667	3,670	629	46,276	9,650
1926	4,372,734	98,289	54,080	7,620	4,054	3,566	6,773	3,816	631	39,788	9,795
1927	4,490,121	99,940	50,600	6,766	3,915	2,851	6,794	3,834	667	36,276	10,617
1928	4,607,508	97,462	54,755	6,806	3,739	3,067	6,594	3,701	603	37,300	10,615
1929	4,724,895	98,695	56,117	6,605	3,777	2,828	6,613	3,710	617	36,816	12,094

[1] 1990 Census population is being used to calculate 1990-1992 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.1 (continued)

Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces

Michigan, 1900 - 1992

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1930	4,842,325	98,882	51,561	6,213	3,624	2,589	6,518	3,714	597	29,482	10,639
1931	4,883,703	90,547	49,068	5,187	3,084	2,103	5,643	3,220	539	28,856	9,507
1932	4,925,081	85,254	49,569	4,630	2,798	1,832	5,210	2,980	493	28,552	7,889
1933	4,966,459	80,482	48,507	4,094	2,591	1,503	4,906	2,776	447	33,132	7,671
1934	5,007,837	83,944	50,440	4,377	2,717	1,660	4,781	2,607	450	43,241	10,124
1935	5,049,216	87,403	51,051	4,170	2,550	1,620	4,832	2,717	438	45,313	10,844
1936	5,090,594	88,457	54,777	4,479	2,647	1,832	4,726	2,625	425	47,023	11,419
1937	5,131,972	91,566	53,468	4,374	2,700	1,674	4,919	2,707	326	47,954	12,472
1938	5,173,350	96,962	50,678	4,319	2,734	1,585	4,984	2,732	345	30,105	10,646
1939	5,214,728	94,432	52,017	3,952	2,594	1,358	4,706	2,572	280	37,725	11,589
1940	5,256,106	99,106	52,092	4,022	2,629	1,393	4,749	2,602	292	46,342	12,054
1941	5,437,546	107,498	52,671	4,166	2,687	1,479	4,991	2,769	298	50,989	13,317
1942	5,538,856	124,068	52,738	4,606	3,091	1,515	5,581	3,067	260	51,582	14,085
1943	5,377,329	125,441	56,774	4,804	2,979	1,825	5,563	3,213	237	44,385	15,259
1944	5,377,329	113,586	54,016	4,326	2,784	1,542	5,140	2,874	198	41,678	18,356
1945	5,435,092	111,557	53,641	4,008	2,670	1,338	4,906	2,703	166	48,329	21,133
1946	5,708,415	138,572	54,856	4,541	3,323	1,218	5,978	3,168	163	78,808	29,158
1947	6,069,000	160,275	56,807	5,055	3,677	1,378	6,583	3,422	173	71,319	21,386
1948	6,195,000	153,726	56,520	4,617	3,352	1,265	5,968	3,132	120	61,986	16,017
1949	6,352,000	156,469	57,107	4,520	3,232	1,288	5,746	2,994	105	53,109	16,274
1950	6,371,766	160,055	57,567	4,214	3,043	1,171	5,781	3,095	91	58,180	15,979
1951	6,545,000	172,451	59,181	4,505	3,296	1,209	6,088	3,158	94	53,411	15,446
1952	6,708,000	177,835	59,138	4,689	3,414	1,275	6,266	3,224	82	50,487	14,925
1953	6,852,000	182,968	62,087	4,728	3,369	1,339	6,188	3,180	79	53,308	16,537
1954	7,024,000	192,104	60,706	4,795	3,560	1,235	6,415	3,249	94	51,243	16,281
1955	7,236,000	196,294	63,087	4,873	3,707	1,166	6,381	3,029	61	55,698	17,676
1956	7,516,000	206,068	64,352	5,047	3,796	1,251	6,655	3,245	84	57,068	16,228
1957	7,803,000	208,488	66,435	5,093	3,884	1,209	6,668	3,154	79	55,121	15,442
1958	7,866,000	202,690	65,899	4,980	3,789	1,191	6,516	3,101	69	55,159	14,040
1959	7,960,000	198,301	66,812	4,846	3,674	1,172	6,250	2,928	72	58,826	16,168

[1] 1990 Census population is being used to calculate 1990-1992 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.1 (continued)

Population[1], Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces

Michigan, 1900 - 1992

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population[2]	Live Births	Deaths							Marriages	Divorces[4]
			All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1960	7,823,194	195,056	67,912	4,702	3,580	1,122	6,247	3,008	75	61,090	16,656
1961	7,903,000	192,825	67,375	4,604	3,475	1,129	5,875	2,735	78	63,320	16,219
1962	7,939,000	182,790	70,049	4,367	3,251	1,116	5,669	2,703	56	65,002	17,500
1963	8,030,000	178,871	72,438	4,150	3,109	1,041	5,407	2,540	71	68,160	17,479
1964	8,100,000	175,103	72,129	4,043	3,071	972	5,293	2,466	62	73,911	19,400
1965	8,199,283	166,464	73,665	3,936	2,909	1,027	5,139	2,475	54	81,247	20,305
1966	8,314,070	165,794	74,596	3,751	2,830	921	4,909	2,295	54	83,903	21,727
1967	8,615,000	162,756	75,360	3,595	2,714	881	4,693	2,195	52	84,363	23,620
1968	8,675,000	159,058	76,855	3,438	2,617	821	4,476	2,064	44	90,984	25,400
1969	8,734,000	165,760	76,693	3,356	2,550	806	4,488	2,175	27	93,392	28,347
1970	8,875,083	171,667	76,321	3,492	2,671	821	4,522	2,060	29	91,933	29,934
1971	8,972,000	162,244	77,395	3,157	2,412	745	4,139	1,923	32	92,134	31,790
1972	9,025,000	146,854	79,210	2,801	2,115	686	3,700	1,765	35	94,447	35,505
1973	9,072,000	141,550	78,522	2,561	1,902	659	3,392	1,682	26	94,486	37,128
1974	9,109,000	137,414	76,143	2,387	1,734	653	2,947	1,438	19	88,023	39,940
1975	9,108,000	133,931	74,522	2,205	1,563	642	2,673	1,356	16	82,856	40,782
1976	9,117,000	131,378	75,801	1,978	1,424	554	2,495	1,264	14	82,753	43,101
1977	9,157,000	138,416	74,144	1,945	1,367	578	2,452	1,284	11	86,088	43,036
1978	9,202,000	138,802	74,773	1,931	1,281	650	2,302	1,201	15	88,333	45,029
1979	9,249,000	144,452	73,480	1,921	1,295	626	2,285	1,175	11	89,450	44,242
1980	9,262,078	145,162	74,991	1,851	1,284	567	2,235	1,135	16	86,898	45,047
1981	9,270,000	140,579	75,818	1,851	1,281	570	2,151	1,040	7	85,252	43,167
1982	9,227,327	137,950	75,536	1,672	1,202	470	1,988	954	11	82,633	39,739
1983	9,155,480	133,026	76,639	1,573	1,067	506	1,843	933	6	78,910	37,991
1984	9,057,432	135,782	76,401	1,595	1,100	495	1,884	929	4	80,810	37,563
1985	9,088,341	138,052	78,635	1,575	1,071	504	1,867	953	9	79,022	38,775
1986	9,144,545	137,626	80,177	1,565	1,079	486	1,782	865	11	77,815	39,553
1987	9,199,871	140,466	79,795	1,538	1,029	509	1,701	824	8	74,418	39,857
1988	9,239,811	139,635	80,075	1,542	1,068	474	1,659	761	11	75,386	40,103
1989	9,273,429	148,164	78,566	1,645	1,070	575	1,792	881	13	76,210	40,276
1990	9,295,297	153,080	78,501	1,638	1,073	565	1,722	830	10	76,099	40,568
1991	9,295,297	149,478	79,738	1,554	1,003	551	1,620	775	16	72,747	40,103
1992	9,295,297	143,827	78,916	1,460	962	498	1,576	755	15	71,322	40,425

[1] 1990 Census population is being used to calculate 1990-1992 rates.

[2] 1971-1979 population estimates have been revised by the U.S. Census Bureau.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.2

Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates

Michigan, 1900 - 1992[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1900	18.1	13.4	157.1				30.3	1,034.3	19.2	2.0
1901	17.6	13.3	146.2				34.7	1,228.6	19.6	2.0
1902	18.2	12.6	130.6				39.4	1,027.5	20.5	2.3
1903	18.1	13.1	141.0				39.4	927.9	20.5	2.3
1904	18.4	13.4	135.1				40.2	917.7	19.3	2.2
1905	18.0	13.3	150.2				43.5	885.6	20.1	2.2
1906	22.1	14.0	135.7				40.2	682.6	20.7	2.4
1907	21.9	13.6	117.0				39.9	662.4	20.7	2.3
1908	23.7	13.5	118.8				41.6	679.3	18.9	2.2
1909	23.2	13.1	115.7				39.5	629.6	19.7	2.5
1910	22.8	14.2	124.8				39.9	672.3	20.7	2.6
1911	22.7	13.1	108.4				41.3	685.9	20.6	2.8
1912	23.3	13.0	100.4				41.8	569.5	21.3	2.6
1913	23.8	13.3	104.8				40.4	722.7	21.9	2.6
1914	24.3	12.7	96.8				40.6	660.5	22.4	2.8
1915	25.0	12.5	85.6				41.4	601.7	21.9	2.9
1916	26.2	13.8	96.7				42.4	577.7	24.1	3.3
1917	26.2	13.8	88.5				39.7	655.3	25.1	3.3
1918	26.1	15.6	89.8				40.4	776.9	19.0	3.1
1919	23.5	12.7	89.9				40.0	687.6	25.4	4.2
1920	25.1	14.2	93.1				40.9	861.8	27.7	4.7
1921	25.4	11.7	79.0				38.2	630.0	21.9	4.1
1922	23.1	11.2	74.7				42.0	611.9	22.3	3.9
1923	23.1	12.3	80.4				39.3	627.2	24.7	4.4
1924	23.7	11.4	72.2	41.9	30.2	66.7	37.7	647.7	24.1	4.5
1925	23.3	11.6	75.7	40.6	35.1	64.9	37.1	635.5	21.7	4.5
1926	22.5	12.4	77.5	41.2	36.3	66.3	38.8	642.0	18.7	4.5
1927	22.3	11.3	67.7	39.2	28.5	65.5	38.4	667.4	16.2	4.7
1928	21.2	11.9	69.8	38.4	31.5	65.2	38.0	618.7	16.2	4.6
1929	20.9	11.9	66.9	38.3	28.7	64.6	37.6	625.2	15.6	5.1

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

[2] 1990 Census population is used to calculate 1990-1992 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.2 (continued)
Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates
Michigan, 1900 - 1992[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1930	20.4	10.6	62.8	36.6	26.2	63.5	37.6	603.7	12.2	4.4
1931	18.5	10.1	57.3	34.1	23.2	60.2	35.6	595.3	11.8	3.9
1932	17.3	10.1	54.3	32.8	21.5	59.0	35.0	578.3	11.6	3.2
1933	16.2	9.8	50.9	32.2	18.7	58.9	34.5	555.4	13.3	3.1
1934	16.8	10.1	52.1	32.4	19.8	55.2	31.1	536.1	17.3	4.0
1935	17.3	10.1	47.7	29.2	18.5	53.6	31.1	501.1	17.9	4.3
1936	17.4	10.8	50.6	29.9	20.7	51.9	29.7	480.5	18.5	4.5
1937	17.8	10.4	47.8	29.5	18.3	52.2	29.6	356.0	18.7	4.9
1938	18.7	9.8	44.5	28.2	16.3	50.0	28.2	355.8	11.6	4.1
1939	18.1	10.0	41.8	27.5	14.4	48.5	27.2	296.5	14.5	4.4
1940	18.9	9.9	40.6	26.5	14.1	46.7	26.3	294.6	17.6	4.6
1941	19.8	9.7	38.8	25.0	13.8	45.3	25.8	277.2	18.8	4.9
1942	22.4	9.5	37.1	24.9	12.2	43.9	24.7	209.6	18.6	5.1
1943	23.3	10.6	38.3	23.7	14.5	43.2	25.6	188.9	16.5	5.7
1944	21.1	10.0	38.1	24.5	13.6	44.1	25.3	174.3	15.5	6.8
1945	20.5	9.9	35.9	23.9	12.0	42.9	24.2	148.8	17.8	7.8
1946	24.3	9.6	32.8	24.0	8.8	42.2	22.9	117.6	27.6	10.2
1947	26.4	9.4	31.5	22.9	8.6	40.2	21.4	107.9	23.5	7.1
1948	24.8	9.1	30.0	21.8	8.2	38.0	20.4	78.1	20.0	5.2
1949	24.6	9.0	28.9	20.7	8.2	36.0	19.1	67.1	16.7	5.1
1950	25.1	9.0	26.3	19.0	7.3	35.4	19.3	56.9	18.3	5.0
1951	26.3	9.0	26.1	19.1	7.0	34.7	18.3	54.5	16.3	4.7
1952	26.5	8.8	26.4	19.2	7.2	34.6	18.1	46.1	15.1	4.4
1953	26.7	9.1	25.8	18.5	7.3	33.2	17.4	43.2	15.6	4.8
1954	27.3	8.6	25.0	18.5	6.4	32.8	16.9	48.9	14.6	4.6
1955	27.1	8.7	24.8	18.9	5.9	32.0	15.4	31.1	15.4	4.9
1956	27.4	8.6	24.5	18.4	6.1	31.8	15.7	40.8	15.2	4.3
1957	26.7	8.5	24.4	18.6	5.8	31.5	15.1	37.9	14.1	4.0
1958	25.8	8.4	24.6	18.7	5.9	31.7	15.3	34.0	14.0	3.6
1959	24.9	8.4	24.4	18.5	5.9	31.1	14.8	36.3	14.8	4.1

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

[2] 1990 Census population is used to calculate 1990-1992 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.2 (continued)

Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates

Michigan, 1900 - 1992[1]

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population[2]. Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces[4]
		All Ages	Under 1 Year	Under 28 Days[3]	28-364 Days	Perinatal	Fetal	Maternal		
1960	24.9	8.7	24.1	18.4	5.8	31.5	15.4	38.5	15.6	4.3
1961	24.4	8.5	23.9	18.0	5.9	30.0	14.2	40.5	16.0	4.1
1962	23.0	8.8	23.9	17.8	6.1	30.6	14.8	30.6	16.4	4.4
1963	22.3	9.0	23.2	17.4	5.8	29.8	14.2	49.7	17.0	4.4
1964	21.6	8.9	23.1	17.5	5.6	29.8	14.1	35.4	18.2	4.8
1965	20.3	9.0	23.6	17.5	6.2	30.4	14.9	32.4	19.8	5.0
1966	19.9	9.0	23.6	17.1	5.6	29.2	13.8	32.6	20.2	5.2
1967	18.9	8.7	22.1	16.7	5.4	28.4	13.5	31.9	19.6	5.5
1968	18.3	8.9	21.6	16.5	5.2	27.8	13.0	27.7	21.0	5.9
1969	19.0	8.8	20.2	15.4	4.9	26.7	13.1	16.3	21.4	6.5
1970	19.3	8.6	20.3	15.6	4.8	26.0	12.0	16.9	20.7	6.7
1971	18.1	8.6	19.5	14.9	4.6	25.2	11.9	19.7	20.5	7.1
1972	16.3	8.8	19.1	14.4	4.7	24.9	12.0	23.8	20.9	7.9
1973	15.6	8.7	18.1	13.4	4.7	23.7	11.9	18.4	20.8	8.2
1974	15.1	8.4	17.4	12.6	4.8	21.2	10.5	13.8	19.3	8.8
1975	14.7	8.2	16.5	11.7	4.8	19.8	10.1	11.9	18.2	9.0
1976	14.4	8.3	15.1	10.8	4.2	18.8	9.6	10.7	18.2	9.5
1977	15.1	8.1	14.1	9.9	4.2	17.6	9.3	7.9	18.8	9.4
1978	15.1	8.1	13.9	9.2	4.7	16.4	8.7	10.8	19.2	9.8
1979	15.6	7.9	13.3	9.0	4.3	15.7	8.1	7.6	19.3	9.6
1980	15.7	8.1	12.8	8.8	3.9	15.3	7.8	11.0	18.8	9.7
1981	15.2	8.2	13.2	9.1	4.1	15.2	7.4	5.0	18.4	9.3
1982	15.0	8.2	12.1	8.7	3.4	14.3	6.9	8.0	17.0	8.6
1983	14.5	8.4	11.8	8.0	3.8	13.8	7.0	4.5	17.2	8.3
1984	15.0	8.4	11.7	8.1	3.6	13.8	6.8	*	17.8	8.3
1985	15.2	8.7	11.4	7.8	3.7	13.4	6.9	6.5	17.4	8.5
1986	15.1	8.8	11.4	7.8	3.5	12.9	6.3	8.0	17.0	8.7
1987	15.3	8.7	10.9	7.3	3.6	12.0	5.7	5.7	16.2	8.7
1988	15.1	8.7	11.0	7.6	3.4	11.9	5.4	7.9	16.3	8.7
1989	16.0	8.5	11.1	7.2	3.9	12.0	5.9	8.8	16.4	8.7
1990	16.5	8.4	10.7	7.0	3.7	11.2	5.4	6.5	16.4	8.7
1991	16.1	8.6	10.4	6.7	3.7	10.8	5.2	10.7	15.7	8.6
1992	15.5	8.5	10.2	6.7	3.5	10.9	5.2	10.4	15.3	8.7

[1] 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

[2] 1990 Census population is used to calculate 1990-1992 rates.

[3] For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

[4] 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.3
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1992

Year	All Ages[1]	Age of Mother							
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1920	92,740	34	8,129	26,344	26,251	17,521	10,427	3,523	336	175
1921	96,322	39	8,747	26,583	27,292	18,433	11,150	3,572	337	169
1922	90,209	28	8,125	24,575	25,154	17,690	10,584	3,485	343	225
1923	93,066	37	8,725	25,887	25,459	18,072	10,770	3,476	382	258
1924	98,025	38	9,877	28,000	25,781	18,707	11,395	3,682	321	224
1925	99,220	62	10,248	28,116	26,204	18,869	11,406	3,695	379	241
1926	98,781	76	10,496	28,479	25,876	18,444	11,219	3,568	354	269
1927	100,178	59	10,685	29,302	25,707	18,790	11,287	3,722	332	294
1928	97,797	54	10,788	28,895	25,003	17,953	10,913	3,558	315	318
1929	99,134	56	11,312	30,582	25,557	16,957	10,555	3,523	293	299
1930	99,325	60	11,476	29,956	25,861	17,125	10,684	3,582	291	290
1931	90,929	61	10,109	27,255	23,806	15,937	9,905	3,317	302	237
1932	85,736	62	9,297	25,686	22,608	14,988	9,314	3,250	291	240
1933	80,923	52	8,642	23,874	21,618	14,298	8,795	3,173	261	210
1934	83,925	48	9,039	25,458	22,507	14,968	8,391	3,050	259	205
1935	87,446	47	9,808	27,631	22,938	15,026	8,473	3,029	284	210
1936	88,427	53	9,764	28,681	23,584	14,814	8,194	2,866	274	197
1937	91,539	54	10,524	30,532	24,366	15,022	7,949	2,653	242	197
1938	96,963	64	11,024	32,581	26,116	15,690	8,397	2,698	253	140
1939	94,302	51	10,368	31,036	26,095	15,976	8,021	2,416	209	130
1940	99,021	51	10,671	32,960	27,860	16,549	8,146	2,390	202	192
1941	107,458	50	11,309	36,833	31,067	17,132	8,351	2,361	200	155
1942	123,886	66	12,721	43,947	36,034	19,367	8,985	2,445	202	119
1943	125,778	67	11,934	41,627	37,773	21,449	9,980	2,615	184	149
1944	114,700	76	10,113	36,096	33,654	21,094	10,636	2,714	182	135
1945	112,655	73	9,294	32,790	33,143	22,831	11,185	2,970	229	140
1946	139,277	72	10,899	45,999	41,985	25,184	11,811	3,002	223	102
1947	161,085	91	15,594	55,954	47,793	26,296	12,009	3,073	182	93
1948	154,730	95	16,245	53,520	45,059	25,268	11,391	2,888	173	91
1949	157,178	117	16,404	53,608	46,363	25,971	11,565	2,906	181	63

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.3 (continued)
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1992

Year	All Ages[1]	Age of Mother								
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1950	160,955	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92
1951	173,506	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84
1952	178,634	134	17,206	58,012	54,198	31,756	13,880	3,176	220	52
1953	182,810	166	18,510	58,070	54,734	32,948	14,798	3,350	190	44
1954	192,332	208	20,522	60,776	55,962	35,152	15,862	3,598	220	32
1955	196,623	195	21,417	61,952	56,462	35,968	16,554	3,862	198	15
1956	206,226	192	22,808	66,332	58,392	36,870	17,282	4,172	164	14
1957	208,808	190	23,798	67,086	58,424	36,980	17,956	4,160	200	14
1958	202,900	222	23,034	65,834	55,130	36,278	17,892	4,296	196	18
1959	198,576	200	21,922	65,426	53,434	34,934	18,030	4,424	198	8
1960	195,056	186	22,786	65,108	51,842	33,228	17,410	4,288	202	6
1961	192,825	212	23,891	64,336	50,277	32,456	17,067	4,363	203	20
1962	182,790	268	22,702	62,243	47,109	29,817	16,160	4,250	224	17
1963	178,871	210	21,686	62,834	46,063	28,364	15,117	4,359	229	9
1964	175,103	264	22,526	62,196	44,671	26,542	14,509	4,162	220	13
1965	166,464	267	24,653	59,439	40,693	23,767	13,528	3,886	211	20
1966	165,794	310	28,690	60,711	39,225	21,205	11,846	3,547	223	37
1967	162,756	316	27,267	61,541	40,052	19,840	10,479	3,059	178	24
1968	159,058	400	26,390	60,072	41,561	18,613	9,095	2,739	163	25
1969	165,760	421	28,061	63,376	44,615	18,535	8,157	2,433	134	28
1970	171,667	489	29,764	65,892	46,262	19,003	7,904	2,223	118	12
1971	162,244	472	28,480	62,367	43,639	18,259	6,975	1,926	112	14
1972	146,854	503	28,108	54,199	40,442	16,133	5,805	1,555	95	14
1973	141,550	569	27,808	51,284	39,845	15,520	5,163	1,277	62	22
1974	137,414	501	25,977	49,975	40,215	15,317	4,291	1,063	50	25
1975	133,931	463	24,509	48,675	40,061	14,891	4,273	982	54	23
1976	131,378	404	22,593	47,161	41,412	14,893	4,053	799	47	16
1977	138,416	426	22,585	49,740	43,346	17,293	4,178	771	51	26
1978	138,802	345	21,487	49,498	43,744	18,367	4,562	729	50	20
1979	144,452	355	21,239	51,319	46,084	19,962	4,720	715	41	17

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.3 (continued)
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1992

Year	All Ages[1]	Age of Mother								
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Age Not Stated
1980	145,162	331	20,000	51,218	47,113	21,024	4,692	740	22	22
1981	140,579	300	18,397	47,737	46,527	22,178	4,701	695	34	10
1982	137,950	319	17,344	45,586	45,995	22,564	5,395	711	29	7
1983	133,026	328	16,589	42,034	45,065	22,505	5,669	791	38	7
1984	135,782	341	16,442	41,664	45,908	24,320	6,295	780	30	2
1985	138,052	352	16,279	41,125	47,049	25,491	6,864	851	36	5
1986	137,626	335	16,536	39,611	46,421	26,331	7,503	842	35	12
1987	140,466	329	16,911	39,314	47,052	27,795	8,038	969	46	12
1988	139,635	371	17,003	37,529	45,924	28,469	8,553	1,094	54	638
1989	148,164	396	19,149	39,352	47,853	30,462	9,571	1,207	58	116
1990	153,080	426	20,224	39,992	48,466	32,058	10,421	1,382	40	71
1991	149,478	414	19,325	39,546	45,995	32,025	10,627	1,464	36	46
1992	143,827	373	18,341	37,446	43,246	31,496	11,199	1,604	60	62

[1] Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: [illegible]ffice of the State Registrar and Division for Health Statistics, MDPH

Table 4.4
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1992

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1920	0.2	55.7	173.1	164.0	124.2	83.8	34.3	3.8	3,195.5
1921	0.2	56.9	167.3	165.5	125.8	84.8	32.8	3.6	3,184.5
1922	0.2	50.8	149.6	149.1	117.3	77.1	30.7	3.5	2,891.5
1923	0.2	52.6	152.6	147.5	116.5	75.4	29.3	3.8	2,889.5
1924	0.2	57.4	160.0	146.1	117.3	76.7	29.9	3.1	2,953.5
1925	0.3	57.4	155.9	145.4	115.2	73.9	28.8	3.5	2,902.0
1926	0.4	56.9	153.3	140.5	109.7	70.1	26.8	3.2	2,804.5
1927	0.3	56.0	153.3	136.8	108.9	68.1	27.0	2.9	2,766.5
1928	0.2	54.8	147.1	130.3	101.5	63.7	25.0	2.6	2,626.0
1929	0.2	55.7	151.5	130.6	93.6	59.6	23.9	2.4	2,587.5
1930	0.3	55.2	145.5	130.2	92.8	58.9	23.7	2.3	2,544.5
1931	0.3	47.8	130.4	118.3	85.3	54.3	21.5	2.3	2,301.0
1932	0.3	43.4	121.5	111.0	79.4	50.8	20.8	2.2	2,148.0
1933	0.2	39.7	111.6	105.2	75.0	47.7	20.0	1.9	2,006.5
1934	0.2	41.0	117.6	108.4	77.8	45.3	18.9	1.8	2,055.0
1935	0.2	43.9	126.2	109.4	77.4	45.5	18.5	2.0	2,115.5
1936	0.2	43.1	129.5	111.4	75.5	43.8	17.3	1.8	2,113.0
1937	0.2	45.9	136.4	113.9	75.9	42.3	15.8	1.6	2,160.0
1938	0.3	47.4	143.9	120.9	78.5	44.4	15.8	1.6	2,264.0
1939	0.2	44.1	135.6	119.6	79.2	42.3	14.0	1.3	2,181.5
1940	0.2	44.9	142.8	126.8	81.5	42.8	13.7	1.2	2,269.5
1941	0.2	48.1	157.8	137.1	81.6	42.5	13.2	1.2	2,408.5
1942	0.3	54.5	186.6	155.3	89.9	44.7	13.4	1.2	2,729.5
1943	0.3	51.6	175.1	159.0	97.1	48.6	14.1	1.1	2,734.5
1944	0.3	44.1	150.5	138.5	93.2	50.6	14.3	1.0	2,462.5
1945	0.3	40.8	135.5	133.4	98.5	52.1	15.4	1.3	2,386.5
1946	0.3	48.3	188.5	165.3	106.2	53.8	15.3	1.2	2,894.5
1947	0.4	69.7	227.3	184.2	108.4	53.6	15.4	1.0	3,300.0
1948	0.4	73.2	215.5	170.0	101.9	49.8	14.2	1.0	3,130.0
1949	0.5	74.6	214.0	171.4	102.5	49.6	14.1	1.0	3,138.5

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1992

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1950	0.5	74.6	212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4	79.1	229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5	73.5	233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6	76.8	234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7	82.8	246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955	0.6	84.1	253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956	0.6	87.2	272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6	88.6	277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958	0.6	83.6	273.4	221.5	134.3	65.0	17.2	0.9	3,982.5
1959	0.6	77.6	273.3	217.4	128.6	64.4	17.3	0.9	3,900.5
1960	0.5	79.3	273.1	213.0	121.8	61.4	16.6	0.9	3,833.0
1961	0.6	78.1	252.0	200.7	120.2	61.3	16.8	0.9	3,653.0
1962	0.7	70.7	231.5	183.9	111.4	58.9	16.3	0.9	3,371.5
1963	0.5	64.6	222.5	175.9	107.0	55.9	16.6	0.9	3,219.5
1964	0.6	64.2	210.1	167.0	101.0	54.4	15.8	0.9	3,070.0
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.0	154.0	76.1	32.4	8.3	0.4	2,584.5
1971	1.0	63.7	157.3	142.4	71.2	29.0	7.4	0.4	2,353.0
1972	1.1	61.6	137.4	122.7	60.8	24.2	6.1	0.4	2,071.0
1973	1.2	59.9	128.0	117.3	55.2	21.5	5.1	0.2	1,945.0
1974	1.1	55.3	122.3	113.7	52.4	17.7	4.4	0.2	1,846.5
1975	1.0	52.0	116.8	109.3	49.6	17.5	4.2	0.2	1,771.0
1976	0.9	48.0	111.0	107.5	49.1	16.3	3.4	0.2	1,709.5
1977	1.0	48.4	114.3	112.7	52.9	16.3	3.3	0.2	1,767.0
1978	0.8	46.5	111.5	111.6	54.5	16.8	3.1	0.2	1,739.5
1979	0.9	46.7	114.0	114.9	57.0	16.8	3.0	0.2	1,774.0

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates[1] by Age of Mother
Michigan Residents, 1920 - 1992

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother								Total Fertility Rate
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+[2]	
1980	0.8	44.8	113.1	115.6	58.4	16.4	3.1	0.1	1,761.5
1981	0.8	41.3	103.5	110.8	59.5	16.2	3.0	0.2	1,817.5
1982	0.9	39.2	98.0	107.6	59.2	18.4	3.1	0.1	1,811.5
1983	0.9	37.9	89.8	104.0	58.0	19.3	3.6	0.2	1,772.5
1984	1.0	43.8	103.8	111.4	65.2	19.3	3.0	0.1	1,738.0
1985	1.0	43.9	104.1	115.1	67.1	20.5	3.1	0.2	1,775.0
1986	1.0	45.2	101.6	114.4	68.3	21.8	2.9	0.1	1,776.5
1987	1.0	46.9	102.3	117.1	71.5	22.9	3.3	0.2	1,826.0
1988	1.1	47.8	99.2	115.8	73.0	23.9	3.6	0.2	1,823.0
1989	1.2	54.6	105.7	122.3	78.2	26.4	3.8	0.2	1,962.0
1990	1.3	58.8	112.3	125.0	77.5	27.5	4.1	0.2	2,033.6
1991	1.3	56.4	111.1	118.7	77.4	28.0	4.4	0.0	1,986.6
1992	1.1	53.3	105.2	111.6	76.2	29.6	4.8	0.2	1,910.0

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.5
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningo-coccal Infections[2]	Polio	Syphilis[3]	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	2,706	694	5,122	3,375	20,356		2,721	654				
1901	2,498	5,088	3,002	2,955	4,629		2,915	506				
1902	2,993	7,086	2,456	3,534	11,978		2,658	528				
1903	3,670	6,341	2,840	4,172	8,941		2,745	525				
1904	3,510	5,753	3,028	1,779	10,386		2,928	448				
1905	2,159	2,985	2,774	1,196	6,061		2,590	577				
1906	3,648	1,240	3,163	1,364	7,403		2,653	533				
1907	2,935	1,712	1,953	872	12,139		2,699	575				
1908	2,658	2,306	2,656	1,248	4,775		2,705	487				
1909	3,109	1,533	2,694	1,054	9,047		3,423	457				
1910	3,433	3,319	3,361	1,136	13,934		4,415	522	104			
1911	3,762	888	2,660	1,897	9,639		5,254	478	68			
1912	3,294	1,127	2,847	1,255	2,834		1,958	88	78			
1913	5,505	1,995	2,253	929	9,185		1,920	165	56			
1914	5,149	1,527	2,167	1,822	11,356		2,566	205	49			
1915	4,386	1,094	1,956	2,258	4,438		3,648	107	95			
1916	5,625	1,581	2,513	1,837	12,143		7,076	163	598			
1917	8,499	3,674	1,723	3,211	14,472		4,856	75	91			
1918	6,128	5,241	1,339	2,563	6,726		3,655	95	121			
1919	7,896	2,381	1,254	1,829	8,885		4,231	75	155	5,077	7,910	
1920	10,360	4,818	1,421	7,171	22,364		4,994	203	67	8,117	11,463	
1921	12,075	4,512	1,837	6,696	3,043		5,708	173	483	7,421	9,774	
1922	8,513	1,230	1,108	5,642	12,107		5,573	159	43	7,900	9,717	
1923	7,725	2,311	982	7,617	30,041		5,471	186	39	10,480	9,597	
1924	6,011	4,527	782	4,364	18,290		5,570	157	647	13,000	10,490	
1925	3,925	784	962	7,576	10,332		5,785	128	99	14,668	10,660	
1926	5,377	549	583	8,776	39,946		5,387	96	107	14,872	10,707	
1927	4,575	1,467	581	6,818	8,303		5,406	138	282	15,713	9,318	
1928	3,724	1,335	390	9,700	27,039		5,885	276	77	15,323	8,592	
1929	4,618	2,410	310	9,340	18,040		6,248	1,864	180	16,606	9,661	

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

[3] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningo-coccal Infections[2]	Polio	Syphilis[3]	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	3,206	2,375	504	7,937	28,129		5,128	901	208	16,538	8,554	
1931	1,831	915	424	11,448	6,212		6,132	293	1,137	14,662	7,843	
1932	1,188	222	513	13,091	42,129		7,103	129	112	11,969	6,963	
1933	1,152	46	453	11,720	21,654		6,624	86	93	7,691	6,447	
1934	614	49	486	11,255	6,528		5,264	53	230	6,483	6,188	
1935	645	16	355	13,427	79,061		4,642	113	614	6,416	6,372	
1936	661	32	287	14,287	2,453		5,157	120	152	6,401	6,460	
1937	842	152	241	11,426	6,154		6,469	87	421	8,708	7,072	
1938	619	274	285	14,563	79,400		6,335	69	59	14,684	7,046	
1939	452	371	177	8,997	12,948		6,119	46	904	13,144	6,364	
1940	264	76	120	11,757	20,206		6,063	49	1,228	9,999	7,650	
1941	242	114	147	16,512	70,748		5,371	49	270	11,370	8,767	
1942	243	17	74	11,602	8,569		5,720	66	162	12,461	8,753	
1943	281	18	115	12,091	51,764		6,546	757	255	15,933	9,526	
1944	419	10	78	4,049	26,711		6,419	857	884	17,288	11,987	
1945	630	16	59	5,339	6,328	134	5,471	270	215	16,046	12,565	
1946	385	3	85	8,116	42,261	34	5,548	185	1,091	18,051	12,635	
1947	238	1	77	10,472	9,574	14	6,470	113	646	15,276	10,989	
1948	126	-	49	2,668	42,952	9	6,109	107	775	12,100	9,448	
1949	119	-	48	4,157	20,279	28	5,953	120	2,909	8,740	9,427	
1950	84	-	43	9,184	38,245	48	5,538	133	2,029	8,830	8,678	
1951	48	-	33	3,156	15,227	325	6,144	138	1,463	6,532	8,494	
1952	45	-	53	1,992	32,941	283	6,152	169	3,912	7,377	7,691	
1953	12	-	31	2,932	23,334	868	5,643	151	2,346	5,619	8,790	
1954	57	-	30	5,620	40,725	1,419	5,764	150	2,168	4,686	9,940	
1955	59	-	24	4,249	23,882	1,244	5,488	170	1,177	4,865	10,306	
1956	220	-	56	1,907	41,966	814	5,515	182	656	4,785	9,598	
1957	130	-	12	1,363	19,070	657	5,011	175	498	4,571	8,428	
1958	6	-	18	1,233	41,448	688	5,587	228	1,228	4,267	8,621	
1959	3	-	8	3,001	12,234	1,136	4,743	141	448	3,421	8,033	

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

[3] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[1] (all forms)	Meningo-coccal Infections[2]	Polio	Syphilis[3]	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	9	-	14	1,129	36,161	2,113	4,127	169	88	3,647	8,372	
1961	3	-	7	639	29,391	4,607	3,838	253	40	3,309	9,505	
1962	4	-	12	1,756	25,303	3,280	3,474	139	21	4,331	11,654	
1963	5	-	14	1,410	48,752	2,661	3,298	104	18	5,512	11,043	
1964	1	-	13	957	30,897	2,472	3,047	80	3	5,220	12,028	
1965	-	-	7	612	28,132	2,625	3,069	107	1	5,638	14,319	
1966	1	-	7	653	15,251	2,589	3,259	135	1	5,842	15,424	
1967	1	-	8	1,058	1,048	1,915	2,951	76	3	5,581	17,088	
1968	-	-	1	429	353	2,356	2,618	94	3	5,351	18,153	
1969	-	-	6	192	401	3,359	2,133	114	1	3,809	18,534	
1970	-	-	14	195	1,834	4,594	1,992	69	2	3,920	20,359	
1971	1	-	10	140	2,659	4,828	1,789	64	-	4,800	22,260	
1972	1	-	7	116	2,353	4,322	1,632	55	1	4,891	24,750	
1973	-	-	14	86	4,552	3,872	1,473	54	-	4,375	31,086	
1974	-	-	11	104	2,365	3,599	1,431	54	2	2,722	32,067	
1975	1	-	10	98	3,253	2,877	1,271	76	-	1,638	32,583	
1976	-	-	10	70	6,139	2,645	1,349	65	1	1,089	34,836	
1977	-	-	13	73	1,392	2,686	1,290	51	-	1,185	36,794	
1978	-	-	15	47	8,006	2,174	1,260	87	1	1,133	36,647	
1979	-	-	14	102	869	2,036	1,052	79	-	1,275	36,906	
1980	1	-	12	38	250	1,799	1,185	77	1	1,110	35,125	
1981	-	-	26	30	34	1,700	966	93	-	926	32,316	2
1982	-	-	14	34	64	1,745	932	81	-	917	32,286	2
1983	-	-	10	43	8	1,788	842	91	-	695	34,052	16
1984	-	-	9	31	465	1,728	630	90	-	763	34,758	31
1985	-	-	8	54	113	1,490	535	107	-	673	33,516	64
1986	-	-	5	35	185	1,266	619	81	-	584	37,920	149
1987	-	-	5	54	42	1,610	540	111	1	621	37,348	260
1988	-	-	5	38	54	1,202	526	92	-	1,105	37,412	439
1989	-	-	6	48	359	1,044	464	70	-	1,613	33,627	510
1990	-	-	8	88	545	1,111	504	69	-	2,625	30,779	576
1991	-	-	12	38	66	1,120	451	75	-	3,520	27,015	470
1992	-	-	4	16	13	1,238	496	87	-	1,022	21,470	706

[1] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[2] Meningococcal infections prior to 1952 data were for meningococcic menigitis.

[3] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningococcal Infections[3]	Polio	Syphilis[4]	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	111.8	28.7	211.6	139.4	840.8		112.4	27.0				
1901	101.5	206.8	122.0	120.1	188.2		118.5	20.6				
1902	119.8	283.6	98.3	141.4	479.3		106.4	21.1				
1903	144.6	249.9	111.9	164.4	352.3		108.2	20.7				
1904	136.2	223.3	117.5	69.0	403.1		113.6	17.4				
1905	82.5	114.1	106.1	45.7	231.7		99.0	22.1				
1906	137.4	46.7	119.2	51.4	278.9		99.9	20.1				
1907	109.0	63.6	72.5	32.4	450.7		100.2	21.3				
1908	97.3	84.4	97.2	45.7	174.8		99.0	17.8				
1909	112.2	55.3	97.2	38.0	326.5		123.5	16.5				
1910	122.2	118.1	119.6	40.4	495.8		157.1	18.6	3.7			
1911	129.9	31.0	91.8	65.5	332.8		181.4	16.5	2.3			
1912	110.5	37.8	95.5	42.1	95.0		65.7	3.0	2.6			
1913	179.5	65.0	73.4	30.3	299.4		62.6	5.4	1.8			
1914	163.3	48.4	68.7	57.8	360.1		81.4	6.5	1.6			
1915	135.4	33.8	60.4	69.7	137.0		112.6	3.3	2.9			
1916	169.2	47.5	75.6	55.2	365.2		212.8	4.9	18.0			
1917	249.2	107.7	50.5	94.1	424.3		142.4	2.2	2.7			
1918	175.2	149.9	38.3	73.3	192.4		104.5	2.7	3.5			
1919	220.4	66.5	35.0	51.1	248.0		118.1	2.1	4.3	141.7	220.8	
1920	282.4	131.3	38.7	195.5	609.6		136.1	5.5	1.8	221.3	312.8	
1921	318.9	119.2	48.5	176.9	80.4		150.8	4.6	12.8	196.0	258.2	
1922	218.1	31.5	28.4	144.5	310.2		142.8	4.1	1.1	202.4	248.9	
1923	192.1	57.5	24.4	189.5	747.2		136.1	4.6	1.0	260.7	238.7	
1924	145.3	109.4	18.9	105.5	442.0		134.6	3.8	15.6	314.2	253.5	
1925	92.2	18.4	22.6	178.0	242.8		135.9	3.0	2.3	344.7	250.5	
1926	123.0	12.6	13.3	200.7	913.5		123.2	2.2	2.4	340.1	244.9	
1927	101.9	32.7	12.9	151.8	184.9		120.4	3.1	6.3	349.9	207.5	
1928	80.8	29.0	8.5	210.5	586.9		127.7	6.0	1.7	332.6	186.5	
1929	97.7	51.0	6.6	197.7	381.8		132.2	39.4	3.8	351.4	204.5	

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

[4] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningo-coccal Infections[3]	Polio	Syphilis[4]	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	66.2	49.0	10.4	163.9	580.9		105.9	18.6	4.3	341.5	176.6	
1931	37.5	18.7	8.7	234.4	127.2		125.6	6.0	23.3	300.2	160.6	
1932	24.1	4.5	10.4	265.8	855.4		144.2	2.6	2.3	243.0	141.4	
1933	23.2	0.9	9.1	236.0	436.0		133.4	1.7	1.9	154.9	129.8	
1934	12.3	1.0	9.7	224.8	130.4		105.1	1.1	4.6	129.5	123.6	
1935	12.8	0.3	7.0	265.9	1,565.8		91.9	2.2	12.2	127.1	126.2	
1936	13.0	0.6	5.6	280.7	48.2		101.3	2.4	3.0	125.7	126.9	
1937	16.4	3.0	4.7	222.6	119.9		126.1	1.7	8.2	169.7	137.8	
1938	12.0	5.3	5.5	281.5	1,534.8		122.5	1.3	1.1	283.8	136.2	
1939	8.7	7.1	3.4	172.5	248.3		117.3	0.9	17.3	252.0	122.0	
1940	5.0	1.4	2.3	223.7	384.4		115.3	0.9	23.4	190.2	145.5	
1941	4.5	2.1	2.7	303.7	1,301.1		98.8	0.9	5.0	209.1	161.2	
1942	4.4	0.3	1.3	209.5	154.7		103.3	1.2	2.9	225.0	158.0	
1943	5.2	0.3	2.1	224.8	962.6		121.7	14.1	4.7	296.3	177.1	
1944	7.8	0.2	1.5	75.3	496.7		119.4	15.9	16.4	321.5	222.9	
1945	11.6	0.3	1.1	98.2	116.4	2.5	100.7	5.0	4.0	295.2	231.2	
1946	6.7	*	1.5	142.2	740.3	0.6	97.2	3.2	19.1	316.2	221.3	
1947	3.9	*	1.3	172.5	157.8	0.2	106.6	1.9	10.6	251.7	181.1	
1948	2.0	-	0.8	43.1	693.3	0.1	98.6	1.7	12.5	195.3	152.5	
1949	1.9	-	0.8	65.4	319.3	0.4	93.7	1.9	45.8	137.6	148.4	
1950	1.3	-	0.7	144.1	600.2	0.8	86.9	2.1	31.8	138.6	136.2	
1951	0.7	-	0.5	48.2	232.7	5.0	93.9	2.1	22.4	99.8	129.8	
1952	0.7	-	0.8	29.7	491.1	4.2	91.7	2.5	58.3	110.0	114.7	
1953	0.2	-	0.5	42.8	340.5	12.7	82.4	2.2	34.2	82.0	128.3	
1954	0.8	-	0.4	80.0	579.8	20.2	82.1	2.1	30.9	66.7	141.5	
1955	0.8	-	0.3	58.7	330.0	17.2	75.8	2.3	16.3	67.2	142.4	
1956	2.9	-	0.7	25.4	558.4	10.8	73.4	2.4	8.7	63.7	127.7	
1957	1.7	-	0.2	17.5	244.4	8.4	64.2	2.2	6.4	58.6	108.0	
1958	0.1	-	0.2	15.7	526.9	8.7	71.0	2.9	15.6	54.2	109.6	
1959	*	-	0.1	37.7	153.7	14.3	59.6	1.8	5.6	43.0	100.9	

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

[4] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates[1] of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB[2] (all forms)	Meningo-coccal Infections[3]	Polio	Syphilis[4]	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	0.1	-	0.2	14.4	462.2	27.0	52.8	2.2	1.1	46.6	107.0	
1961	•	-	0.1	8.1	371.9	58.3	48.6	3.2	0.5	41.9	120.3	
1962	•	-	0.2	22.1	318.7	41.3	43.8	1.8	0.3	54.6	146.8	
1963	•	-	0.2	17.6	607.1	33.1	41.1	1.3	0.2	68.6	137.5	
1964	•	-	0.2	11.8	381.4	30.5	37.6	1.0	•	64.4	148.5	
1965	-	-	0.1	7.5	343.1	32.0	37.4	1.3	•	68.8	174.6	
1966	•	-	0.1	7.9	183.4	31.1	39.2	1.6	•	70.3	185.5	
1967	•	-	0.1	12.3	12.2	22.2	34.2	0.9	•	64.8	198.4	
1968	-	-	•	4.9	4.1	27.2	30.2	1.1	•	61.7	209.3	
1969	-	-	0.1	2.2	4.6	38.5	24.4	1.3	•	43.6	212.2	
1970	-	-	0.2	2.2	20.7	51.8	22.4	0.8	•	44.2	229.4	
1971	•	-	0.1	1.6	29.6	53.8	19.9	0.7	-	53.5	248.1	
1972	•	-	0.1	1.3	26.1	47.9	18.1	0.6	•	54.2	274.2	
1973	-	-	0.2	0.9	50.2	42.7	16.2	0.6	-	48.2	342.7	
1974	-	-	0.1	1.1	26.0	39.5	15.7	0.6	•	29.9	352.0	
1975	•	-	0.1	1.1	35.7	31.6	14.0	0.8	-	18.0	357.7	
1976	-	-	0.1	0.8	67.3	29.0	14.8	0.7	•	11.9	382.1	
1977	-	-	0.1	0.8	15.2	29.3	14.1	0.6	-	12.9	401.8	
1978	-	-	0.2	0.5	87.0	23.6	13.7	0.9	•	12.3	398.3	
1979	-	-	0.2	1.1	9.4	22.0	11.4	0.9	-	13.6	396.0	
1980	•	-	0.1	0.4	2.7	19.4	12.6	0.8	•	12.6	377.4	
1981	-	-	0.3	0.3	0.4	18.3	10.0	1.0	-	11.4	350.9	•
1982	-	-	0.2	0.4	0.7	18.9	9.4	0.9	-	10.0	356.0	•
1983	-	-	0.1	0.5	0.1	19.5	8.6	1.0	-	8.0	372.1	0.2
1984	-	-	0.1	0.3	5.1	19.0	7.3	1.0	-	8.3	383.9	0.5
1985	-	-	0.1	0.6	0.7	16.4	5.9	1.2	-	7.2	368.8	0.9
1986	-	-	•	0.4	0.2	13.8	6.8	0.9	-	6.4	414.8	1.6
1987	-	-	•	0.6	0.5	17.5	5.9	1.2	•	6.8	503.8	2.4
1988	-	-	•	0.4	0.3	13.0	5.5	1.0	-	11.0	405.1	3.9
1989	-	-	0.1	0.5	3.9	11.3	5.0	0.8	-	17.4	362.6	5.5
1990	-	-	0.1	0.9	5.9	12.0	5.4	0.7	-	28.2	331.1	6.2
1991	-	-	0.1	0.4	0.7	12.0	4.9	0.8	-	37.9	290.6	5.1
1992	-	-	0.0	0.2	0.1	13.3	5.3	0.9	-	11.0	231.0	7.6

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] Meningococcal infections prior to 1952 data were for meningococcic meningitis.

[4] Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.7
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea		AIDS	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	529	21.9	272	11.2	869	35.9	208	8.6	342	14.1	2,018	83.4	2,500	103.3								
1901	502	20.4	312	12.7	645	26.2	163	6.6	79	3.2	2,152	87.5	2,548	103.6			88	3.6				
1902	504	20.2	277	11.1	608	24.3	289	11.6	238	9.5	2,088	83.6	2,462	98.5			114	4.6				
1903	686	27.0	200	7.9	606	23.9	383	15.1	176	6.9	2,155	84.9	2,562	101.0			130	5.2				
1904	515	20.0	210	8.1	641	24.9	148	5.7	194	7.5	2,306	89.5	2,761	107.2			101	4.0				
1905	478	18.3	123	4.7	636	24.3	131	5.0	123	4.7	2,288	87.5	2,732	104.5			89	3.5				
1906	472	17.8	227	8.6	721	27.2	469	17.7	251	9.5	2,303	86.8	2,737	103.1			89	3.4				
1907	421	15.6	159	5.9	594	22.1	223	8.3	256	9.5	2,338	86.8	2,728	101.3			94	3.6				
1908	343	12.6	194	7.1	687	25.1	305	11.2	121	4.4	2,249	82.3	2,706	99.0			118	4.5				
1909	395	14.3	275	9.9	653	23.6	217	7.8	270	9.7	2,237	80.7	2,629	94.9			127	4.8				
1910	495	17.6	297	10.6	654	23.3	318	11.3	251	8.9	2,273	80.9	2,756	98.1	52	1.9	65	2.3				
1911	473	16.3	208	7.2	551	19.0	254	8.8	200	6.9	2,284	78.9	2,766	95.5	55	1.9	104	3.6				
1912	465	15.6	186	6.2	534	17.9	252	8.5	118	4.0	2,289	76.8	2,744	92.0	48	1.7	90	3.1				
1913	676	22.0	283	9.2	538	17.5	292	9.5	258	8.4	2,243	73.1	2,703	88.1	43	1.5	136	4.6				
1914	507	16.1	177	5.6	400	12.7	304	9.6	180	5.7	2,325	73.7	2,799	88.8	41	1.4	160	5.3				
1915	354	10.9	107	3.3	353	10.9	236	7.3	101	3.1	2,527	78.0	2,986	92.2	36	1.2	163	5.3				
1916	507	15.2	177	5.3	424	12.8	228	6.9	363	10.9	2,573	77.4	3,070	92.3	141	4.6	206	6.7				
1917	851	24.9	340	10.0	386	11.3	360	10.6	259	7.6	2,779	81.5	3,310	97.0	44	1.4	224	7.1				
1918	686	19.6	181	5.2	337	9.6	496	14.2	270	7.7	3,059	87.5	3,612	103.3	58	1.8	290	9.1				
1919	764	21.3	179	5.0	272	7.6	172	4.8	183	5.1	2,620	73.1	3,127	87.3	80	2.2	299	8.2				
1920	888	24.2	305	8.3	297	8.1	511	13.9	436	11.9	2,645	72.1	3,149	85.8	30	0.8	314	8.4				
1921	954	25.2	334	8.8	285	7.5	316	8.3	58	1.5	2,285	60.4	2,736	72.3	100	2.6	226	5.9	14	0.4		
1922	620	15.9	217	5.6	192	4.9	232	5.9	232	5.9	2,232	57.2	2,654	68.0	21	0.5	186	4.7	6	0.2		
1923	675	16.8	304	7.6	202	5.0	323	8.0	258	6.4	2,410	59.9	2,837	70.6	18	0.5	262	6.8	5	*		
1924	470	11.4	265	6.4	149	3.6	169	4.1	221	5.3	2,474	59.8	2,952	71.3	116	3.0	271	7.0	13	0.3		
1925	358	8.4	208	4.9	157	3.7	260	6.1	69	1.6	2,410	56.6	2,830	66.5	31	0.7	282	6.6	27	0.6		
1926	677	15.5	235	5.4	119	2.7	355	8.1	577	13.2	2,601	59.5	3,041	69.5	34	0.8	327	7.5	12	0.3		
1927	516	11.5	168	3.7	94	2.1	201	4.5	67	1.5	2,514	56.0	2,952	65.7	69	1.5	305	6.8	16	0.4		
1928	384	8.3	178	3.9	83	1.8	219	4.8	303	6.6	2,647	57.4	3,108	67.5	27	0.6	384	8.4	19	0.4		
1929	498	10.5	145	3.1	81	1.7	255	5.4	146	3.1	2,685	56.8	3,140	66.5	50	1.1	397	8.4	19	0.4		

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the, Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea		AIDS	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	299	6.2	130	2.7	87	1.8	176	3.6	231	4.8	2,443	50.5	2,912	60.1	39	0.8	395	8.2	12	0.2		
1931	172	3.5	122	2.5	73	1.5	190	3.9	28	0.6	2,263	46.3	2,660	54.5	108	2.2	361	7.4	3	*		
1932	106	2.2	112	2.3	56	1.1	199	4.0	183	3.7	2,101	42.7	2,463	50.0	23	0.5	377	7.7	2	*		
1933	112	2.3	157	3.2	50	1.0	153	3.1	111	2.2	1,996	40.2	2,348	47.3	5	*	327	6.6	7	0.1		
1934	38	0.8	171	3.4	65	1.3	141	2.8	36	0.7	1,909	38.1	2,199	43.9	25	0.5	402	8.0	10	0.2		
1935	58	1.1	98	1.9	34	0.7	132	2.6	184	3.6	1,741	34.5	2,044	40.5	32	0.6	393	7.8	3	*		
1936	52	1.0	114	2.2	37	0.7	107	2.1	12	0.2	1,816	35.7	2,100	41.3	21	0.4	394	7.7	6	0.1		
1937	72	1.4	148	2.9	29	0.6	132	2.6	11	0.2	1,860	36.2	2,119	41.3	51	1.0	401	7.8	8	0.2		
1938	44	0.9	87	1.7	23	0.4	116	2.2	100	1.9	1,633	31.6	1,866	36.1	10	0.2	401	7.8	8	0.2		
1939	25	0.5	69	1.3	25	0.5	76	1.5	29	0.6	1,651	31.7	1,881	36.1	40	0.8	389	7.5	4	*		
1940	20	0.4	41	0.8	11	0.2	59	1.1	19	0.4	1,547	29.4	1,752	33.3	72	1.4	591	11.2	3	*		
1941	18	0.3	32	0.6	14	0.3	91	1.7	65	1.2	1,532	28.2	1,723	31.7	18	0.3	537	9.9	1	*		
1942	24	0.4	23	0.4	5	*	72	1.3	8	0.1	1,630	29.4	1,827	33.0	10	0.2	559	10.1	7	0.1		
1943	21	0.4	11	0.2	9	0.2	101	1.9	89	1.7	1,588	29.5	1,802	33.5	27	0.5	579	10.8	3	*		
1944	32	0.6	7	0.1	7	0.1	33	0.6	49	0.9	1,544	28.7	1,748	32.5	45	0.8	543	10.1	2	*		
1945	46	0.8	9	0.2	3	*	36	0.7	10	0.2	1,591	29.3	1,758	32.3	20	0.4	527	9.7	2	*		
1946	27	0.5	3	*	6	0.1	44	0.8	47	0.8	1,645	28.8	1,843	32.3	89	1.6	547	9.6	-	-		
1947	23	0.4	6	0.1	5	*	63	1.0	5	*	1,483	24.4	1,643	27.1	29	0.5	502	8.3	3	*		
1948	8	0.1	1	*	4	*	9	0.1	43	0.7	1,395	22.5	1,561	25.2	54	0.9	512	8.3	-	-		
1949	11	0.2	4	*	1	*	22	0.3	33	0.5	1,254	19.7	1,400	22.0	216	3.4	455	7.2	-	-		
1950	2	*	1	*	5	*	28	0.4	28	0.4	1,134	17.8	1,270	19.9	128	2.0	325	5.1	1	*		
1951	6	0.1	-	-	1	*	21	0.3	11	0.2	1,049	16.0	1,154	17.6	67	1.0	299	4.6	1	*		
1952	2	*	-	-	-	-	8	0.1	17	0.3	689	10.3	775	11.6	213	3.2	174	2.6	2	*		
1953	2	*	1	*	-	-	11	0.2	16	0.2	536	7.8	607	8.9	108	1.6	182	2.7	1	*		
1954	3	*	3	*	-	-	17	0.2	17	0.2	471	6.7	530	7.5	89	1.3	139	2.0	2	*		
1955	1	*	1	*	1	*	8	0.1	10	0.1	435	6.0	477	6.6	32	0.4	115	1.6	1	*		
1956	6	0.1	3	*	-	-	6	0.1	26	0.3	426	5.7	466	6.2	22	0.3	114	1.5	4	*		
1957	1	*	-	-	-	-	6	0.1	23	0.3	403	5.2	442	5.7	15	0.2	105	1.3	4	*		
1958	-	-	-	-	-	-	1	*	18	0.2	357	4.5	395	5.0	37	0.5	84	1.1	8	0.1		
1959	1	*	2	*	1	*	5	*	11	0.1	335	4.2	370	4.6	17	0.2	84	1.1	4	*		

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
Number of Deaths and Death Rates[1] for Certain Communicable Diseases
Michigan Residents, 1900 - 1992 *(Rates per 100,000 population)*

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis[2] (all forms)		Poliomyelitis		Syphilis[3]		Gonorrhea		AIDS	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1960	2	*	1	*	-	-	1	*	17	0.2	364	4.7	390	5.0	4	*	79	1.0	7	0.1		
1961	1	*	1	*	-	-	2	*	13	0.2	307	3.9	332	4.2	-	-	71	0.9	7	0.1		
1962	2	*	1	*	-	-	2	*	8	0.1	307	3.9	331	4.2	2	*	94	1.2	3	*		
1963	-	-	-	-	-	-	-	-	27	0.3	276	3.4	299	3.7	1	*	72	0.9	1	*		
1964	-	-	-	-	-	-	2	*	11	0.1	288	3.6	315	3.9	1	*	66	0.8	3	*		
1965	-	-	-	-	-	-	-	-	5	*	261	3.2	285	3.5	-	-	65	0.8	2	*		
1966	1	*	-	-	-	-	-	-	7	0.1	284	3.4	301	3.6	-	-	63	0.8	-	-		
1967	-	-	-	-	-	-	-	-	3	*	206	2.4	226	2.6	-	-	44	0.5	1	*		
1968	-	-	1	*	-	-	-	-	-	-	203	2.3	262	3.0	2	*	29	0.3	-	-		
1969	-	-	-	-	-	-	-	-	-	-	147	1.7	201	2.3	-	-	26	0.3	1	*		
1970	-	-	2	*	-	-	-	-	1	*	134	1.5	180	2.0	-	-	17	0.2	2	*		
1971	-	-	4	*	-	-	-	-	-	-	122	1.4	173	1.9	-	-	18	0.2	-	-		
1972	-	-	1	*	1	*	-	-	-	-	111	1.2	157	1.7	1	*	12	0.1	-	-		
1973	-	-	-	-	-	-	1	*	2	*	101	1.1	138	1.5	3	*	12	0.1	-	-		
1974	-	-	1	*	-	-	2	*	-	-	109	1.2	142	1.6	3	*	11	0.1	-	-		
1975	-	-	-	-	-	-	1	*	1	*	81	0.9	110	1.2	5	*	10	0.1	1	*		
1976	-	-	-	-	-	-	-	-	-	-	80	0.9	102	1.1	6	0.1	11	0.1	-	-		
1977	-	-	1	*	-	-	-	-	-	-	67	0.7	97	1.1	6	0.1	3	*	-	-		
1978	-	-	-	-	-	-	1	*	1	*	60	0.7	80	0.9	2	*	5	*	-	-		
1979	-	-	-	-	-	-	-	-	-	-	47	0.5	62	0.7	2	*	9	0.1	-	-		
1980	-	-	-	-	-	-	-	-	-	-	51	0.6	61	0.7	-	-	1	*	1	*		
1981	-	-	-	-	1	*	-	-	-	-	41	0.4	53	0.6	-	-	4	*	1	*		
1982	-	-	-	-	-	-	-	-	1	*	30	0.3	41	0.4	-	-	-	-	-	-		
1983	-	-	1	*	-	-	-	-	1	*	28	0.3	39	0.4	-	-	3	*	-	-		
1984	-	-	-	-	-	-	-	-	-	-	47	0.5	59	0.7	-	-	2	*	-	-		
1985	-	-	-	-	-	-	-	-	-	-	37	0.4	46	0.5	-	-	3	*	-	-		
1986	-	-	-	-	-	-	-	-	-	-	36	0.4	44	0.5	-	-	2	*	-	-		
1987	-	-	-	-	-	-	-	-	-	-	39	0.4	46	0.5	-	-	2	*	-	-	160	1.7
1988	-	-	1	*	-	-	1	*	-	-	36	0.4	42	0.5	-	-	2	*	-	-	216	2.3
1989	-	-	-		-	-	-	-	-	-	31	0.3	32	0.3	-	-	3	*	-	-	329	3.5
1990	-	-	1	*	-	-	-	-	-	-	28	0.3	43	0.5	-	-	-	-	-	-	373	4.0
1991	-	-	-	-	-	-	-	-	-	-	20	0.2	41	0.4	-	-	-	-	-	-	465	5.0
1992	-	-	-	-	-	-	-	-	-	-	30	0.3	49	0.5	-	-	1	*	-	-	573	6.2

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

[3] From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.8
Number of Deaths and Death Rates[1] by Specified Causes
Michigan Residents, 1900 - 1992
(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	2,836	117.1	1,460	60.3	2,136	88.2	1,740	71.9			224	9.3	2,388	98.6				
1901	3,040	123.6	1,484	60.3	2,147	87.3	1,901	77.3			264	10.7	2,901	117.9				
1902	3,302	132.1	1,483	59.3	2,097	83.9	1,796	71.9			289	11.6	2,637	105.5				
1903	3,702	145.9	1,694	66.8	2,321	91.5	2,017	79.5			265	10.4	2,607	102.7				
1904	3,981	154.5	1,728	67.1	2,431	94.3	2,035	79.0			298	11.6	2,646	102.7				
1905	3,715	142.0	1,693	64.7	2,405	91.9	2,034	77.8			267	10.2	2,417	92.4				
1906	3,933	148.2	1,736	65.4	2,554	96.2	2,126	80.1			311	11.7	2,621	98.7				
1907	4,269	158.5	1,747	64.9	2,690	99.9	2,209	82.0			352	13.1	3,018	112.0				
1908	4,202	153.8	1,921	70.3	2,630	96.3	2,036	74.5			359	13.1	2,313	84.7				
1909	4,354	157.1	1,948	70.3	2,739	98.8	1,903	68.7			374	13.5	2,265	81.7				
1910	4,581	163.0	2,105	74.9	3,091	110.0	2,158	76.8	49	1.7	398	14.2	2,785	99.1	282	10.0		
1911	4,639	160.2	2,142	74.0	2,916	100.7	2,121	73.2	44	1.5	373	12.9	2,763	95.4				
1912	5,324	178.5	2,291	76.8	2,707	90.8	2,005	67.2	75	2.5	448	15.0	2,796	93.8				
1913	4,908	160.0	2,388	77.8	2,834	92.4	2,333	76.1	132	4.3	483	15.7	3,082	100.5				
1914	5,124	162.5	2,414	76.6	2,993	94.9	2,108	66.8	120	3.8	503	16.0	2,909	92.2				
1915	5,538	171.0	2,567	79.2	3,384	104.5	2,219	68.5	190	5.9	498	15.4	3,229	99.7				
1916	5,819	175.0	2,710	81.5	3,559	107.0	2,853	85.8	257	7.7	500	15.0	3,698	111.2				
1917	6,103	178.9	2,765	81.1	3,703	108.6	2,925	85.8	335	9.8	569	16.7	4,455	130.6				
1918	6,091	174.2	2,931	83.8	3,493	99.9	2,599	74.3	279	8.0	591	16.9	7,238	207.0				
1919	5,651	157.7	2,990	83.5	3,483	97.2	2,612	72.9	328	9.2	559	15.6	4,081	113.9				
1920	6,732	183.5	3,158	86.1	3,876	105.7	2,646	72.1	397	10.8	577	15.7	5,794	157.9				
1921	6,176	163.1	3,373	89.1	3,931	103.8	2,476	65.4	403	10.6	586	15.5	2,849	75.3	261	6.9		
1922	6,897	176.7	3,481	89.2	4,041	103.5	2,475	63.4	529	13.6	650	16.7	3,728	95.5	267	6.8		
1923	7,266	180.7	3,545	88.2	4,420	109.9	2,826	70.3	677	16.8	635	15.8	4,719	117.4	251	6.2		
1924	6,985	168.8	3,824	92.4	4,241	102.5	3,090	74.7	1,001	24.2	661	16.0	3,332	80.5	256	6.2		
1925	7,540	177.2	3,858	90.7	4,623	108.6	3,278	77.0	1,103	25.9	746	17.5	3,294	77.4	319	7.5		
1926	8,281	189.4	4,087	93.5	4,663	106.6	3,557	81.3	1,221	27.9	743	17.0	4,440	101.5	326	7.5		
1927	8,780	195.5	4,264	95.0	4,378	97.5	3,634	80.9	1,389	30.9	819	18.2	3,543	78.9	340	7.6		
1928	9,786	212.4	4,381	95.1	4,718	102.4	3,704	80.4	1,429	31.0	905	19.6	4,518	98.1	373	8.1		
1929	10,185	215.6	4,571	96.7	4,694	99.3	3,913	82.8	1,552	32.8	935	19.8	4,216	89.2	361	7.6		

[1] 1990 Census population is used to calculate 1990-1992 rates.
[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.
[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.
[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.8 (continued)
Number of Deaths and Death Rates[1] by Specified Causes
Michigan Residents, 1900 - 1992

(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	9,947	205.4	4,572	94.4	4,533	93.6	3,805	78.6	1,572	32.5	880	18.2	3,321	68.6	329	6.8	1,047	21.6
1931	10,206	209.0	4,763	97.5	4,388	89.8	3,630	74.3	1,516	31.0	950	19.5	2,883	59.0	365	7.5	1,005	20.6
1932	11,162	226.6	4,935	100.2	4,518	91.7	3,179	64.5	1,229	25.0	1,121	22.8	3,238	65.7	386	7.8	948	19.2
1933	11,509	231.7	5,055	101.8	4,318	86.9	3,304	66.5	1,278	25.7	1,103	22.2	2,756	55.5	354	7.1	966	19.5
1934	11,824	236.1	5,370	107.2	4,485	89.6	3,774	75.4	1,511	30.2	1,100	22.0	3,466	69.2	378	7.5	914	18.3
1935	12,456	246.7	5,399	106.9	4,420	87.5	3,771	74.7	1,676	33.2	1,228	24.3	3,801	75.3	368	7.3	897	17.8
1936	13,374	262.7	5,752	113.0	4,705	92.4	5,246	103.1	1,924	37.8	1,266	24.9	4,096	80.5	446	8.8	997	19.6
1937	13,233	257.8	5,732	111.7	4,378	85.3	4,580	89.2	2,187	42.6	1,255	24.5	4,098	79.8	430	8.4	1,168	22.8
1938	13,887	268.4	6,059	117.1	4,543	87.8	3,608	69.7	1,490	28.8	1,283	24.8	2,869	55.5	424	8.2	869	16.8
1939	14,898	285.7	6,296	120.7	4,415	84.7	3,761	72.1	1,553	29.8	1,360	26.1	2,803	53.8	387	7.4	918	17.6
1940	15,480	294.5	6,513	123.9	4,690	89.2	3,961	75.4	1,743	33.2	1,408	26.8	2,478	47.1	468	8.9	941	17.9
1941	15,761	289.8	6,551	120.5	4,698	86.4	4,450	81.8	2,156	39.6	1,382	25.4	2,235	41.1	450	8.3	906	16.7
1942	16,016	289.2	6,646	120.0	4,841	87.4	3,685	66.5	1,368	24.7	1,448	26.1	2,349	42.4	535	9.7	1,015	18.3
1943	17,816	331.3	7,127	132.5	5,311	98.8	3,480	64.7	1,025	19.1	1,535	28.5	2,931	54.5	518	9.6	1,092	20.3
1944	17,004	316.2	7,277	135.3	4,954	92.1	3,350	62.3	1,103	20.5	1,554	28.9	2,369	44.1	471	8.8	980	18.2
1945	17,421	320.5	7,486	137.7	5,295	97.4	3,432	63.1	1,199	22.1	1,561	28.7	1,932	35.5	535	9.8	970	17.8
1946	17,691	309.9	7,845	137.4	5,224	91.5	3,776	66.1	1,506	26.4	1,530	26.8	1,891	33.1	554	9.7	933	16.3
1947	18,412	303.4	8,188	134.9	5,426	89.4	3,848	63.4	1,499	24.7	1,618	26.7	2,089	34.4	697	11.5	1,031	17.0
1948	18,726	302.3	8,336	1346.0	5,272	85.1	4,017	64.8	1,545	24.9	1,771	28.6	1,853	29.9	771	12.4	1,085	17.5
1949	19,137	301.3	8,697	136.9	5,438	85.6	3,838	60.4	1,493	23.5	1,884	29.7	1,885	29.7	730	11.5	1,135	17.9
1950	20,521	322.1	8,685	136.3	6,376	100.1	3,783	59.4	1,680	26.4	1,438	22.6	1,358	21.3	616	9.7	1,296	20.3
1951	21,118	322.6	9,187	140.4	6,579	100.5	3,916	59.8	1,806	27.6	1,374	21.0	1,619	24.7	569	8.7	1,312	20.0
1952	21,247	316.8	9,256	138.0	6,521	97.2	3,901	58.2	1,815	27.1	1,339	20.0	1,571	23.4	599	8.9	1,294	19.3
1953	22,425	327.3	9,904	144.5	7,045	102.8	4,375	63.8	2,051	29.9	1,419	20.7	1,538	22.4	715	10.4	1,270	18.5
1954	22,362	318.4	10,105	143.9	6,964	99.1	3,948	56.2	1,916	27.3	1,469	20.9	1,380	19.6	677	9.6	1,170	16.7
1955	23,440	323.9	10,297	142.3	7,362	101.7	4,213	58.2	2,129	29.4	1,415	19.6	1,538	21.3	805	11.1	1,237	17.1
1956	24,661	328.1	10,489	139.6	7,114	94.7	3,925	52.2	1,826	24.3	1,443	19.2	1,723	22.9	788	10.5	1,251	16.6
1957	25,369	325.1	10,810	138.5	7,632	97.8	3,643	46.7	1,680	21.5	1,510	19.4	2,045	26.2	861	11.0	1,248	16.0
1958	25,215	320.6	10,946	139.2	7,547	95.9	3,306	42.0	1,466	18.6	1,595	20.3	2,076	26.4	818	10.4	1,300	16.5
1959	25,323	318.1	11,113	139.6	7,700	96.7	3,666	46.1	1,587	19.9	1,715	21.5	1,810	22.7	815	10.2	1,403	17.6

[1] 1990 Census population is used to calculate 1990-1992 rates.

[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.

[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.

[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.

[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.

[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.

[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.8 (continued)
Number of Deaths and Death Rates[1] by Specified Causes
Michigan Residents, 1900 - 1992
(Rates per 100,000 population)

Year	Heart Disease		Cancer[2] (all forms)		Cerebrovascular Disease[3]		Accidents[4] (all forms)		Motor Vehicle Accidents[5]		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis[6]		Athero-sclerosis[7]	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1960	25,728	328.9	11,331	144.8	7,682	98.2	3,688	47.1	1,710	21.9	1,784	22.8	2,002	25.6	840	10.7	1,352	17.3
1961	25,519	322.9	11,476	145.2	7,745	98.0	3,692	46.7	1,656	21.0	1,778	22.5	1,692	21.4	858	10.9	1,448	18.3
1962	27,226	342.9	11,752	148.0	7,783	98.0	3,758	47.3	1,668	21.0	1,908	24.0	1,824	23.0	859	10.8	1,477	18.6
1963	27,483	342.3	12,078	150.4	8,168	101.7	4,033	50.2	2,005	25.0	2,049	25.5	1,995	24.8	958	11.9	1,652	20.6
1964	27,496	339.5	12,087	149.2	7,940	98.0	4,416	54.5	2,286	28.2	2,055	25.4	1,714	21.2	995	12.3	1,559	19.2
1965	28,134	343.1	12,419	151.5	7,769	94.8	4,494	54.8	2,271	27.7	2,153	26.3	1,987	24.2	1,068	13.0	1,726	21.1
1966	28,277	340.1	12,506	150.4	7,732	93.0	4,737	57.0	2,407	29.0	2,243	27.0	2,026	24.4	1,152	13.9	1,745	21.0
1967	28,757	333.8	13,030	151.2	7,846	91.1	4,519	52.4	2,265	26.3	2,182	25.3	1,973	22.9	1,240	14.4	1,730	20.1
1968	29,680	342.1	13,292	153.2	7,913	91.2	4,603	53.1	2,466	28.4	2,298	26.5	2,341	27.0	1,259	14.5	1,262	14.5
1969	29,396	336.6	13,328	152.6	7,706	88.2	4,766	54.6	2,579	29.5	2,188	25.1	2,229	25.5	1,430	16.4	1,289	14.8
1970	29,204	329.1	13,551	152.7	7,691	86.7	4,428	49.9	2,309	26.0	2,180	24.6	2,004	22.6	1,558	17.6	1,174	13.2
1971	30,095	335.4	13,594	151.5	7,826	87.2	4,426	49.3	2,274	25.3	2,103	23.4	1,981	22.1	1,657	18.5	1,187	13.2
1972	30,865	342.0	14,045	155.6	7,999	88.6	4,566	50.6	2,450	27.1	2,222	24.6	2,009	22.3	1,778	19.7	1,153	12.8
1973	29,944	330.1	14,220	156.7	7,987	88.0	4,630	51.0	2,389	26.3	2,074	22.9	1,958	21.6	1,711	18.9	1,142	12.6
1974	29,220	320.8	14,241	156.3	7,645	83.9	4,211	46.2	1,929	21.2	1,940	21.3	1,637	18.0	1,650	18.1	1,187	13.0
1975	28,298	310.7	14,445	158.6	7,262	79.7	4,002	43.9	1,841	20.2	1,819	20.0	1,690	18.6	1,574	17.3	1,119	12.3
1976	29,233	320.6	14,880	163.2	7,354	80.7	3,912	42.9	1,993	21.9	1,719	18.9	1,812	19.9	1,486	16.3	1,207	13.2
1977	28,895	315.6	15,125	165.2	6,818	74.5	3,945	43.1	1,993	21.8	1,615	17.6	1,639	17.9	1,356	14.8	1,164	12.7
1978	29,406	319.6	15,249	165.7	6,520	70.9	3,970	43.1	2,138	23.2	1,551	16.9	1,828	19.9	1,351	14.7	1,146	12.5
1979	29,296	316.7	15,409	166.6	6,067	65.6	3,839	41.5	1,967	21.3	1,449	15.7	1,454	15.7	1,367	14.8	1,173	12.7
1980	29,790	321.6	15,828	170.9	6,164	66.6	3,627	39.2	1,880	20.3	1,467	15.8	1,712	18.5	1,362	14.7	1,254	13.5
1981	30,172	325.5	16,142	174.1	6,121	66.0	3,390	36.6	1,727	18.6	1,487	16.0	1,644	17.7	1,253	13.5	1,270	13.7
1982	30,099	326.2	16,566	179.5	5,839	63.3	3,113	33.7	1,555	16.9	1,347	14.6	1,665	18.0	1,244	13.5	1,284	13.9
1983	30,412	332.2	16,785	183.3	5,721	62.5	2,947	32.2	1,419	15.5	1,470	16.1	2,007	21.9	1,250	13.7	1,269	13.9
1984	30,100	331.7	16,907	186.3	5,631	62.1	3,049	33.6	1,630	18.0	1,476	16.3	2,018	22.2	1,194	13.2	1,142	12.6
1985	30,618	336.9	17,281	190.1	5,528	60.8	3,228	35.5	1,676	18.4	1,387	15.3	2,193	24.1	1,256	13.8	1,173	12.9
1986	31,270	342.0	17,321	189.4	5,421	59.3	3,202	35.0	1,736	19.0	1,494	16.3	2,513	27.5	1,120	12.2	1,214	13.3
1987	30,521	331.8	17,669	192.1	5,481	59.6	3,143	34.2	1,725	18.8	1,479	16.1	2,377	25.8	1,099	11.9	1,168	12.7
1988	30,218	327.0	17,890	193.6	5,237	56.7	3,237	35.0	1,806	19.5	1,522	16.5	2,626	28.4	1,080	11.7	1,187	12.8
1989	28,031	302.3	18,264	196.9	5,173	55.8	3,228	34.8	1,750	18.9	2,052	22.1	2,633	28.4	1,170	12.6	832	9.0
1990	27,527	296.1	18,413	198.1	5,090	54.8	3,137	33.7	1,669	18.0	2,009	21.6	2,863	30.8	1,123	12.1	807	8.7
1991	27,517	296.0	19,204	206.6	5,165	55.6	3,011	32.4	1,494	16.1	2,113	22.7	2,773	29.8	1,060	11.4	823	8.9
1992	26,863	289.0	19,217	206.7	5,087	54.7	2,844	30.6	1,426	15.3	2,114	22.7	2,697	29.0	947	10.2	774	8.3

[1] 1990 Census population is used to calculate 1990-1992 rates.
[2] Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
[3] Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.
[4] Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.
[5] Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
[6] Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
[7] Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.9
Selected Vital Statistics by County
Michigan Residents, 1992

Area	Population Estimate[1]	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[2]	Divorces[2]
Michigan	9,295,297	143,827	10,829	78,916	1,460	962	1,576	755	71,322	40,425
Alcona	10,145	97	9	159	-	-	2	2	87	54
Alger	8,972	94	6	118	-	-	-	-	71	33
Allegan	90,509	1,435	70	669	7	3	8	6	713	426
Alpena	30,605	382	28	298	1	-	-	-	253	156
Antrim	18,185	262	15	223	3	-	-	-	176	95
Arenac	14,931	183	5	176	-	-	1	1	118	54
Baraga	7,954	129	9	95	1	-	-	-	57	34
Barry	50,057	706	42	381	6	1	4	4	402	257
Bay	111,723	1,576	104	1,012	18	11	17	7	903	464
Benzie	12,200	178	10	114	2	-	-	-	135	51
Berrien	161,378	2,477	206	1,449	26	12	29	19	1,389	747
Branch	41,502	539	34	385	5	4	9	6	329	228
Calhoun	135,982	2,075	158	1,377	19	7	18	12	1,250	677
Cass	49,477	541	34	453	6	1	3	3	367	265
Charlevoix	21,468	284	13	212	2	2	5	4	234	110
Cheboygan	21,398	293	21	244	3	1	3	2	180	116
Chippewa	34,604	402	15	283	2	-	2	2	290	117
Clare	24,952	376	25	316	2	1	4	3	214	137
Clinton	57,883	832	44	373	6	5	10	6	443	245
Crawford	12,260	164	12	134	2	1	3	2	96	77
Delta	37,780	411	28	368	4	3	6	4	308	138
Dickinson	26,831	322	18	307	2	2	2	1	228	132
Eaton	92,879	1,192	71	620	4	1	8	8	775	528
Emmet	25,040	359	21	255	6	5	11	6	292	154
Genesee	430,459	7,261	646	3,642	73	47	64	27	3,396	1,730
Gladwin	21,896	299	16	267	2	-	2	2	187	129
Gogebic	18,052	178	8	264	-	-	3	3	144	42
Grand Traverse	64,273	921	58	501	10	7	11	5	671	355
Gratiot	38,982	547	33	398	4	2	3	1	292	153
Hillsdale	43,431	553	26	389	3	2	6	4	325	278
Houghton	35,446	411	18	409	-	-	2	2	267	119
Huron	34,951	416	19	417	5	4	10	6	263	122
Ingham	281,912	4,297	260	1,837	30	13	27	15	2,478	1,203
Ionia	57,024	813	56	388	7	6	11	6	485	248
Iosco	30,209	474	11	306	-	-	-	-	288	184
Iron	13,175	111	4	222	1	-	-	-	85	64
Isabella	54,624	709	35	344	8	4	7	4	400	180
Jackson	149,756	2,188	141	1,292	20	11	39	29	1,284	908
Kalamazoo	223,411	3,307	240	1,671	33	21	45	24	1,821	1,088
Kalkaska	13,497	199	5	104	1	-	-	-	117	63
Kent	500,631	9,081	577	3,496	74	45	71	32	4,703	2,357
Keweenaw	1,701	20	1	30	-	-	-	-	17	8

[1] 1990 Census population.
[2] By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.9 (continued)
Selected Vital Statistics by County
Michigan Residents, 1992

Area	Population Estimate[1]	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[2]	Divorces[2]
Lake	8,583	107	12	129	2	2	3	1	81	42
Lapeer	74,768	1,016	60	504	11	6	12	6	641	381
Leelanau	16,527	216	9	132	2	1	2	1	95	57
Lenawee	91,476	1,247	73	783	6	5	12	7	631	466
Livingston	115,645	1,596	84	726	7	4	10	7	934	602
Luce	5,763	74	1	73	2	2	2	-	39	36
Mackinac	10,674	135	4	120	-	-	-	-	204	39
Macomb	717,400	9,828	583	5,873	53	39	80	43	6,217	2,913
Manistee	21,265	243	18	280	5	4	7	3	176	96
Marquette	70,887	921	47	529	12	11	12	3	655	324
Mason	25,537	322	19	250	1	1	2	1	227	146
Mecosta	37,308	412	22	268	4	2	6	4	295	147
Menominee	24,920	268	12	255	2	1	4	3	223	90
Midland	75,651	1,137	62	469	7	6	13	8	696	375
Missaukee	12,147	190	12	121	2	1	1	-	88	41
Monroe	133,600	1,845	114	960	10	7	9	4	884	616
Montcalm	53,059	824	42	445	5	2	5	3	502	303
Montmorency	8,936	81	3	121	-	-	-	-	63	30
Muskegon	158,983	2,541	164	1,433	23	14	24	13	1,376	866
Newaygo	38,202	674	44	349	7	5	6	4	375	235
Oakland	1,083,592	16,343	1,010	7,956	132	92	168	90	8,843	4,986
Oceana	22,454	344	13	224	3	-	4	4	203	137
Ogemaw	18,681	264	18	261	3	2	5	4	173	81
Ontonagon	8,854	88	5	123	2	1	-	-	59	27
Osceola	20,146	313	19	205	4	2	3	1	173	67
Oscoda	7,842	103	6	98	-	-	1	1	75	34
Otsego	17,957	288	13	148	-	-	3	3	186	98
Ottawa	187,768	3,193	139	1,152	17	6	20	16	946	361
Presque Isle	13,743	145	8	163	2	2	5	3	84	41
Roscommon	19,776	237	14	280	1	1	2	1	150	92
Saginaw	211,946	3,534	336	1,778	51	35	51	18	1,621	930
St. Clair	145,607	2,110	93	1,277	16	12	17	8	1,134	741
St. Joseph	58,913	811	51	562	11	5	12	8	536	362
Sanilac	39,928	501	32	450	9	7	5	1	317	174
Schoolcraft	8,302	90	3	96	-	-	-	-	88	37
Shiawassee	69,770	980	54	558	4	2	10	8	599	298
Tuscola	55,498	811	39	447	3	2	7	6	409	272
Van Buren	70,060	1,109	77	627	10	5	4	2	598	333
Washtenaw	282,937	4,093	261	1,593	39	28	45	20	2,229	1,216
Wayne	2,111,687	37,264	4,071	20,857	590	423	555	191	11,701	7,639
Wexford	26,360	408	27	242	3	1	2	1	263	168
Co. Not Stated	-	27	3	1	1	1	1	-	-	-

[1] 1990 Census population.
[2] By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.10
Selected Vital Statistics Rates[1] by County
Michigan Residents, 1992

Area	Live Births	Low Weight Live Births[2]	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[3]	Divorces[3]
Michigan	15.5	75.3	8.5	10.2	6.7	10.9	5.2	15.3	8.7
Alcona	9.6	92.8	15.7	-	-	20.2	20.2	17.2	10.6
Alger	10.5	63.8	13.2	-	-	-	-	15.8	7.4
Allegan	15.9	48.8	7.4	4.9	2.1	5.6	4.2	15.8	9.4
Alpena	12.5	73.3	9.7	2.6	-	-	-	16.5	10.2
Antrim	14.4	57.3	12.3	11.5	-	-	-	19.4	10.4
Arenac	12.3	27.3	11.8	-	-	5.4	5.4	15.8	7.2
Baraga	16.2	69.8	11.9	7.8	-	-	-	14.3	8.5
Barry	14.1	59.5	7.6	8.5	1.4	5.6	5.6	16.1	10.3
Bay	14.1	66.0	9.1	11.4	7.0	10.7	4.4	16.2	8.3
Benzie	14.6	56.2	9.3	11.2	-	-	-	22.1	8.4
Berrien	15.3	83.2	9.0	10.5	4.8	11.6	7.6	17.2	9.3
Branch	13.0	63.1	9.3	9.3	7.4	16.5	11.0	15.9	11.0
Calhoun	15.3	76.1	10.1	9.2	3.4	8.6	5.7	18.4	10.0
Cass	10.9	62.8	9.2	11.1	1.8	5.5	5.5	14.8	10.7
Charlevoix	13.2	45.8	9.9	7.0	7.0	17.4	13.9	21.8	10.2
Cheboygan	13.7	71.7	11.4	10.2	3.4	10.2	6.8	16.8	10.8
Chippewa	11.6	37.3	8.2	5.0	-	5.0	5.0	16.8	6.8
Clare	15.1	66.5	12.7	5.3	2.7	10.6	7.9	17.2	11.0
Clinton	14.4	52.9	6.4	7.2	6.0	11.9	7.2	15.3	8.5
Crawford	13.4	73.2	10.9	12.2	6.1	18.1	12.0	15.7	12.6
Delta	10.9	68.1	9.7	9.7	7.3	14.5	9.6	16.3	7.3
Dickinson	12.0	55.9	11.4	6.2	6.2	6.2	3.1	17.0	9.8
Eaton	12.8	59.6	6.7	3.4	0.8	6.7	6.7	16.7	11.4
Emmet	14.3	58.5	10.2	16.7	13.9	30.1	16.4	23.3	12.3
Genesee	16.9	89.0	8.5	10.1	6.5	8.8	3.7	15.8	8.0
Gladwin	13.7	53.5	12.2	6.7	-	6.6	6.6	17.1	11.8
Gogebic	9.9	44.9	14.6	-	-	16.6	16.6	16.0	4.7
Grand Traverse	14.3	63.0	7.8	10.9	7.6	11.9	5.4	20.9	11.0
Gratiot	14.0	60.3	10.2	7.3	3.7	5.5	1.8	15.0	7.8
Hillsdale	12.7	47.0	9.0	5.4	3.6	10.8	7.2	15.0	12.8
Houghton	11.6	43.8	11.5	-	-	4.8	4.8	15.1	6.7
Huron	11.9	45.7	11.9	12.0	9.6	23.7	14.2	15.0	7.0
Ingham	15.2	60.5	6.5	7.0	3.0	6.3	3.5	17.6	8.5
Ionia	14.3	68.9	6.8	8.6	7.4	13.4	7.3	17.0	8.7
Iosco	15.7	23.2	10.1	-	-	-	-	19.1	12.2
Iron	8.4	36.0	16.9	9.0	-	-	-	12.9	9.7
Isabella	13.0	49.4	6.3	11.3	5.6	9.8	5.6	14.6	6.6
Jackson	14.6	64.4	8.6	9.1	5.0	17.6	13.1	17.1	12.1
Kalamazoo	14.8	72.6	7.5	10.0	6.4	13.5	7.2	16.3	9.7
Kalkaska	14.7	25.1	7.7	5.0	-	-	-	17.3	9.3
Kent	18.1	63.5	7.0	8.1	5.0	7.8	3.5	18.8	9.4
Keweenaw	11.8	50.0	17.6	-	-	-	-	20.0	9.4

[1] 1990 Census population is used to calculate rates.
[2] Ratio per 1,000 live births.
[3] By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.10 (continued)
Selected Vital Statistics Rates[1] by County
Michigan Residents, 1992

Area	Live Births	Low Weight Live Births[2]	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages[3]	Divorces[3]
Lake	12.5	112.1	15.0	18.7	18.7	27.8	9.3	18.9	9.8
Lapeer	13.6	59.1	6.7	10.8	5.9	11.7	5.9	17.1	10.2
Leelanau	13.1	41.7	8.0	9.3	4.6	9.2	4.6	11.5	6.9
Lenawee	13.6	58.5	8.6	4.8	4.0	9.6	5.6	13.8	10.2
Livingston	13.8	52.6	6.3	4.4	2.5	6.2	4.4	16.2	10.4
Luce	12.8	13.5	12.7	27.0	27.0	27.0	-	13.5	12.5
Mackinac	12.6	29.6	11.2	-	-	-	-	38.2	7.3
Macomb	13.7	59.3	8.2	5.4	4.0	8.1	4.4	17.3	8.1
Manistee	11.4	74.1	13.2	20.6	16.5	28.5	12.2	16.6	9.0
Marquette	13.0	51.0	7.5	13.0	11.9	13.0	3.2	18.5	9.1
Mason	12.6	59.0	9.8	3.1	3.1	6.2	3.1	17.8	11.4
Mecosta	11.0	53.4	7.2	9.7	4.9	14.4	9.6	15.8	7.9
Menominee	10.8	44.8	10.2	7.5	3.7	14.8	11.1	17.9	7.2
Midland	15.0	54.5	6.2	6.2	5.3	11.4	7.0	18.4	9.9
Missaukee	15.6	63.2	10.0	10.5	5.3	5.3	-	14.5	6.8
Monroe	13.8	61.8	7.2	5.4	3.8	4.9	2.2	13.2	9.2
Montcalm	15.5	51.0	8.4	6.1	2.4	6.0	3.6	18.9	11.4
Montmorency	9.1	37.0	13.5	-	-	-	-	14.1	6.7
Muskegon	16.0	64.5	9.0	9.1	5.5	9.4	5.1	17.3	10.9
Newaygo	17.6	65.3	9.1	10.4	7.4	8.8	5.9	19.6	12.3
Oakland	15.1	61.8	7.3	8.1	5.6	10.2	5.5	16.3	9.2
Oceana	15.3	37.8	10.0	8.7	-	11.5	11.5	18.1	12.2
Ogemaw	14.1	68.2	14.0	11.4	7.6	18.7	14.9	18.5	8.7
Ontonagon	9.9	56.8	13.9	22.7	11.4	-	-	13.3	6.1
Osceola	15.5	60.7	10.2	12.8	6.4	9.6	3.2	17.2	6.7
Oscoda	13.1	58.3	12.5	-	-	9.6	9.6	19.1	8.7
Otsego	16.0	45.1	8.2	-	-	10.3	10.3	20.7	10.9
Ottawa	17.0	43.5	6.1	5.3	1.9	6.2	5.0	10.1	3.8
Presque Isle	10.6	55.2	11.9	13.8	13.8	33.8	20.3	12.2	6.0
Roscommon	12.0	59.1	14.2	4.2	4.2	8.4	4.2	15.2	9.3
Saginaw	16.7	95.1	8.4	14.4	9.9	14.4	5.1	15.3	8.8
St. Clair	14.5	44.1	8.8	7.6	5.7	8.0	3.8	15.6	10.2
St. Joseph	13.8	62.9	9.5	13.6	6.2	14.7	9.8	18.2	12.3
Sanilac	12.5	63.9	11.3	18.0	14.0	10.0	2.0	15.9	8.7
Schoolcraft	10.8	33.3	11.6	-	-	-	-	21.2	8.9
Shiawassee	14.0	55.1	8.0	4.1	2.0	10.1	8.1	17.2	8.5
Tuscola	14.6	48.1	8.1	3.7	2.5	8.6	7.3	14.7	9.8
Van Buren	15.8	69.4	8.9	9.0	4.5	3.6	1.8	17.1	9.5
Washtenaw	14.5	63.8	5.6	9.5	6.8	10.9	4.9	15.8	8.6
Wayne	17.6	109.2	9.9	15.8	11.4	14.8	5.1	11.1	7.2
Wexford	15.5	66.2	9.2	7.4	2.5	4.9	2.4	20.0	12.7

[1] 1990 Census population is used to calculate rates.

[2] Ratio per 1,000 live births.

[3] By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.11
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Michigan	29,347	20.4	40,192	27.9	11,665	8.1	29,654	20.6	3,515	2.4	2,108	1.5	13,301	9.2	28,300	19.7	6,841	4.8
Alcona	32	33.0	41	42.3	7	7.2	28	28.9	2	2.1	1	1.0	3	3.1	19	19.6	6	6.2
Alger	12	12.8	23	24.5	1	1.1	28	29.8	2	2.1	1	1.1	7	7.4	14	14.9	3	3.2
Allegan	234	16.3	366	25.5	92	6.4	246	17.1	16	1.1	14	1.0	68	4.7	270	18.8	44	3.1
Alpena	129	33.8	179	46.9	19	5.0	117	30.6	4	1.0	11	2.9	6	1.6	59	15.4	11	2.9
Antrim	64	24.4	89	34.0	12	4.6	75	28.6	3	1.1	5	1.9	11	4.2	55	21.0	7	2.7
Arenac	27	14.8	39	21.3	4	2.2	54	29.5	2	1.1	3	1.6	14	7.7	38	20.8	7	3.8
Baraga	25	19.4	45	34.9	7	5.4	53	41.1	8	6.2	4	3.1	7	5.4	26	20.2	3	2.3
Barry	170	24.1	266	37.7	56	7.9	185	26.2	17	2.4	12	1.7	27	3.8	90	12.7	20	2.8
Bay	197	12.5	394	25.0	87	5.5	460	29.2	52	3.3	27	1.7	47	3.0	313	19.9	85	5.4
Benzie	37	20.8	61	34.3	4	2.2	44	24.7	1	0.6	1	0.6	18	10.1	35	19.7	5	2.8
Berrien	625	25.2	633	25.6	161	6.5	551	22.2	95	3.8	43	1.7	265	10.7	662	26.7	187	7.5
Branch	111	20.6	204	37.8	13	2.4	167	31.0	9	1.7	2	0.4	77	14.3	136	25.2	20	3.7
Calhoun	401	19.3	585	28.2	93	4.5	577	27.8	57	2.7	21	1.0	117	5.6	487	23.5	148	7.1
Cass	225	41.6	179	33.1	54	10.0	141	26.1	17	3.1	20	3.7	53	9.8	163	30.1	47	8.7
Charlevoix	61	21.5	110	38.7	17	6.0	59	20.8	5	1.8	2	0.7	8	2.8	38	13.4	10	3.5
Cheboygan	85	29.0	129	44.0	20	6.8	87	29.7	4	1.4	9	3.1	10	3.4	61	20.8	20	6.8
Chippewa	55	13.7	116	28.9	16	4.0	108	26.9	5	1.2	4	1.0	26	6.5	68	16.9	22	5.5
Clare	81	21.5	107	28.5	25	6.6	105	27.9	6	1.6	4	1.1	19	5.1	92	24.5	16	4.3
Clinton	148	17.8	286	34.4	70	8.4	92	11.1	14	1.7	9	1.1	36	4.3	80	9.6	23	2.8
Crawford	56	34.1	55	33.5	19	11.6	60	36.6	9	5.5	4	2.4	7	4.3	59	36.0	15	9.1
Delta	198	48.2	93	22.6	22	5.4	125	30.4	18	4.4	12	2.9	11	2.7	77	18.7	18	4.4
Dickinson	35	10.9	82	25.5	22	6.8	87	27.0	24	7.5	7	2.2	4	1.2	44	13.7	6	1.9
Eaton	227	19.0	385	32.3	107	9.0	187	15.7	34	2.9	16	1.3	72	6.0	144	12.1	45	3.8
Emmet	92	25.6	123	34.3	21	5.8	87	24.2	5	1.4	7	1.9	8	2.2	49	13.6	6	1.7
Genesee	935	12.9	1,541	21.2	208	2.9	1,438	19.8	112	1.5	57	0.8	317	4.4	1,783	24.6	488	6.7
Gladwin	54	18.1	94	31.4	28	9.4	67	22.4	2	0.7	8	2.7	30	10.0	75	25.1	10	3.3
Gogebic	30	16.9	57	32.0	18	10.1	29	16.3	2	1.1	4	2.2	13	7.3	23	12.9	4	2.2
Grand Traverse	185	20.1	305	33.1	38	4.1	161	17.5	10	1.1	8	0.9	69	7.5	100	10.9	27	2.9
Gratiot	75	13.7	177	32.4	45	8.2	125	22.9	4	0.7	11	2.0	20	3.7	95	17.4	25	4.6
Hillsdale	113	20.4	192	34.7	17	3.1	158	28.6	14	2.5	6	1.1	59	10.7	114	20.6	22	4.0

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

[3] Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

[4] Congenital anomalies reported have increased due to a change in reporting procedure.

[5] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Houghton	77	18.7	156	38.0	16	3.9	91	22.1	19	4.6	8	1.9	9	2.2	38	9.2	8	1.9
Huron	78	18.8	145	34.9	39	9.4	85	20.4	14	3.4	10	2.4	24	5.8	45	10.8	10	2.4
Ingham	959	22.3	1,503	35.0	385	9.0	361	8.4	98	2.3	61	1.4	329	7.7	799	18.6	209	4.9
Ionia	175	21.5	203	25.0	94	11.6	194	23.9	15	1.8	13	1.6	40	4.9	140	17.2	36	4.4
Iosco	115	24.3	183	38.6	21	4.4	109	23.0	5	1.1	7	1.5	35	7.4	66	13.9	10	2.1
Iron	22	19.8	32	28.8	10	9.0	35	31.5	12	10.8	1	0.9	6	5.4	15	13.5	1	0.9
Isabella	185	26.1	235	33.1	49	6.9	151	21.3	4	0.6	8	1.1	41	5.8	101	14.2	26	3.7
Jackson	558	25.5	820	37.5	137	6.3	564	25.8	19	0.9	15	0.7	286	13.1	433	19.8	138	6.3
Kalamazoo	749	22.6	1,257	38.0	220	6.7	700	21.2	169	5.1	47	1.4	133	4.0	591	17.9	140	4.2
Kalkaska	32	16.1	64	32.2	8	4.0	60	30.2	7	3.5	4	2.0	29	14.6	42	21.1	8	4.0
Kent	1,615	17.8	2,207	24.3	1,174	12.9	1,410	15.5	155	1.7	85	0.9	506	5.6	1,548	17.0	421	4.6
Keweenaw	3	15.0	9	45.0	3	15.0	2	10.0	4	20.0	1	5.0	-	-	1	5.0	-	-
Lake	26	24.3	28	26.2	12	11.2	38	35.5	6	5.6	1	0.9	13	12.1	32	29.9	10	9.3
Lapeer	189	18.6	307	30.2	74	7.3	227	22.3	17	1.7	12	1.2	47	4.6	136	13.4	29	2.9
Leelanau	44	20.4	59	27.3	8	3.7	48	22.2	5	2.3	3	1.4	16	7.4	26	12.0	6	2.8
Lenawee	258	20.7	474	38.0	52	4.2	309	24.8	33	2.6	9	0.7	75	6.0	237	19.0	51	4.1
Livingston	337	21.1	522	32.7	52	3.3	262	16.4	53	3.3	13	0.8	145	9.1	115	7.2	21	1.3
Luce	17	23.0	16	21.6	3	4.1	31	41.9	2	2.7	2	2.7	3	4.1	13	17.6	3	4.1
Mackinac	37	27.4	56	41.5	6	4.4	45	33.3	3	2.2	1	0.7	6	4.4	24	17.8	4	3.0
Macomb	2,225	22.6	2,944	30.0	1,508	15.3	2,270	23.1	211	2.1	273	2.8	906	9.2	1,111	11.3	194	2.0
Manistee	36	14.8	68	28.0	11	4.5	59	24.3	3	1.2	4	1.6	30	12.3	54	22.2	12	4.9
Marquette	150	16.3	276	30.0	60	6.5	173	18.8	9	1.0	16	1.7	15	1.6	80	8.7	22	2.4
Mason	65	20.2	88	27.3	17	5.3	73	22.7	3	0.9	4	1.2	23	7.1	68	21.1	12	3.7
Mecosta	82	19.9	112	27.2	36	8.7	103	25.0	2	0.5	7	1.7	35	8.5	88	21.4	18	4.4
Menominee	149	55.6	114	42.5	13	4.9	87	32.5	13	4.9	5	1.9	13	4.9	28	10.4	8	3.0
Midland	334	29.4	522	45.9	141	12.4	210	18.5	9	0.8	35	3.1	18	1.6	106	9.3	29	2.6
Missaukee	97	51.1	34	17.9	6	3.2	56	29.5	1	0.5	-	-	9	4.7	38	20.0	8	4.2
Monroe	399	21.6	581	31.5	151	8.2	497	26.9	30	1.6	15	0.8	112	6.1	358	19.4	83	4.5
Montcalm	197	23.9	224	27.2	104	12.6	254	30.8	12	1.5	23	2.8	52	6.3	188	22.8	38	4.6
Montmorency	21	25.9	37	45.7	4	4.9	22	27.2	-	-	1	1.2	5	6.2	16	19.8	6	7.4

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

[3] Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

[4] Congenital anomalies reported have increased due to a change in reporting procedure.

[5] The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present[1]		Complications of Labor/Delivery[2]		Abnormal Conditions of Newborn[3]		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported[4]		Inadequate Prenatal Care[5]		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Muskegon	265	10.4	452	17.8	72	2.8	655	25.8	47	1.8	19	0.7	197	7.8	538	21.2	172	6.8
Newaygo	160	23.7	225	33.4	59	8.8	170	25.2	8	1.2	7	1.0	38	5.6	155	23.0	38	5.6
Oakland	3,450	21.1	5,002	30.6	2,055	12.6	2,793	17.1	369	2.3	460	2.8	1,075	6.6	1,808	11.1	408	2.5
Oceana	46	13.4	98	28.5	12	3.5	85	24.7	14	4.1	1	0.3	32	9.3	93	27.0	13	3.8
Ogemaw	45	17.0	52	19.7	15	5.7	80	30.3	8	3.0	1	0.4	18	6.8	61	23.1	17	6.4
Ontonagon	20	22.7	35	39.8	7	8.0	18	20.5	5	5.7	4	4.5	6	6.8	9	10.2	2	2.3
Osceola	102	32.6	75	24.0	17	5.4	83	26.5	4	1.3	4	1.3	22	7.0	68	21.7	17	5.4
Oscoda	20	19.4	25	24.3	2	1.9	31	30.1	3	2.9	4	3.9	10	9.7	44	42.7	4	3.9
Otsego	71	24.7	101	35.1	27	9.4	72	25.0	2	0.7	6	2.1	4	1.4	34	11.8	7	2.4
Ottawa	453	14.2	750	23.5	203	6.4	278	8.7	24	0.8	38	1.2	112	3.5	372	11.7	86	2.7
Presque Isle	41	28.3	64	44.1	7	4.8	38	26.2	-	-	1	0.7	2	1.4	18	12.4	3	2.1
Roscommon	77	32.5	77	32.5	15	6.3	96	40.5	15	6.3	5	2.1	14	5.9	68	28.7	12	5.1
Saginaw	907	25.7	1,048	29.7	225	6.4	804	22.8	384	10.9	49	1.4	369	10.4	904	25.6	272	7.7
St. Clair	405	19.2	439	20.8	154	7.3	646	30.6	90	4.3	37	1.8	114	5.4	381	18.1	64	3.0
St. Joseph	155	19.1	217	26.8	[illegible]	5.7	163	20.1	16	2.0	12	1.5	42	5.2	207	25.5	47	5.8
Sanilac	113	22.6	166	33.1	36	7.2	147	29.3	17	3.4	13	2.6	24	4.8	81	16.2	17	3.4
Schoolcraft	16	17.8	29	32.2	3	3.3	35	38.9	4	4.4	2	2.2	5	5.6	11	12.2	-	-
Shiawassee	161	16.4	293	29.9	58	5.9	226	23.1	48	4.9	13	1.3	39	4.0	163	16.6	44	4.5
Tuscola	160	19.7	213	26.3	31	3.8	222	27.4	47	5.8	18	2.2	41	5.1	129	15.9	29	3.6
Van Buren	232	20.9	362	32.6	64	5.8	282	25.4	31	2.8	10	0.9	97	8.7	332	29.9	70	6.3
Washtenaw	932	22.8	1,387	33.9	42	1.0	562	13.7	130	3.2	27	0.7	740	18.1	374	9.1	102	2.5
Wayne	7,359	19.7	8,751	23.5	2,779	7.5	7,787	20.9	755	2.0	356	1.0	5,890	15.8	10,584	28.4	2,492	6.7
Wexford	188	46.1	99	24.3	16	3.9	149	36.5	7	1.7	4	1.0	17	4.2	55	13.5	13	3.2
Unknown	19	70.4	-	-	3	11.1	5	18.5	1	3.7	-	-	3	11.1	5	18.5	1	3.7

[1] Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

[2] Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

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Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.12
Live Births by Age of Mother and County of Residence
Michigan Residents, 1992

Area	Total	Age of Mother											
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 and Over	Age Not Stated
Michigan	143,827	373	951	2,037	3,480	5,146	6,727	18,341	37,446	43,246	31,496	11,199	1,664	62
Alcona	97	-	-	1	5	5	5	16	30	27	20	2	2	-
Alger	94	-	-	1	2	3	4	10	25	30	20	8	1	-
Allegan	1,435	1	2	18	23	55	59	157	429	458	299	83	8	-
Alpena	382	-	2	3	6	19	15	45	93	134	73	33	2	2
Antrim	262	-	-	1	6	12	16	35	83	76	54	13	1	-
Arenac	183	1	1	-	5	8	13	27	65	53	29	8	-	-
Baraga	129	1	-	-	2	5	3	10	56	39	10	12	1	-
Barry	706	-	3	8	9	19	28	67	212	236	144	39	8	-
Bay	1,576	3	17	26	39	63	80	225	414	501	329	89	15	-
Benzie	178	-	1	2	2	10	7	22	45	61	40	9	1	-
Berrien	2,477	12	32	60	83	129	164	468	755	645	424	150	22	1
Branch	539	1	4	7	8	27	29	75	186	161	84	27	5	-
Calhoun	2,075	9	22	43	74	114	133	386	654	580	322	105	16	3
Cass	541	2	3	13	29	34	32	111	191	132	83	20	2	-
Charlevoix	284	-	2	5	3	9	17	36	79	78	61	28	2	-
Cheboygan	293	-	3	5	12	10	16	46	77	79	57	32	2	-
Chippewa	402	-	6	7	9	12	23	57	128	123	64	24	6	-
Clare	376	-	2	5	9	20	34	70	139	93	51	18	4	1
Clinton	832	2	1	5	15	19	21	61	182	318	198	65	6	-
Crawford	164	-	3	5	7	7	13	35	48	45	25	11	-	-
Delta	411	-	1	4	13	14	21	53	120	119	72	36	11	-
Dickinson	322	-	-	2	4	9	19	34	85	101	74	26	2	-
Eaton	1,192	4	5	11	25	36	54	131	332	354	275	87	9	-
Emmet	359	-	-	2	4	15	20	41	90	104	83	33	8	-
Genesee	7,261	30	63	146	249	330	418	1,206	2,176	2,055	1,279	464	50	1
Gladwin	299	1	1	3	5	15	23	47	97	94	40	12	8	-
Gogebic	178	-	3	-	1	8	10	22	71	43	29	11	2	-
Grand Traverse	921	2	1	11	13	27	34	86	207	275	251	87	13	-
Gratiot	547	1	2	7	15	15	29	68	175	193	85	19	5	1
Hillsdale	553	1	2	4	15	38	29	88	165	180	87	26	6	-
Houghton	411	-	-	3	5	8	23	39	101	119	97	46	9	-
Huron	416	-	-	2	8	10	17	37	117	142	85	32	3	-
Ingham	4,297	16	31	63	99	134	215	542	1,095	1,296	920	360	64	4
Ionia	813	3	4	10	19	36	44	113	273	222	146	46	10	-
Iosco	474	-	1	3	6	22	21	53	148	170	76	20	7	-
Iron	111	-	-	-	1	4	6	11	32	41	16	9	2	-
Isabella	709	1	2	6	17	26	29	80	205	231	143	44	5	-
Jackson	2,188	2	14	46	76	96	123	355	645	668	359	142	17	-
Kalamazoo	3,307	4	17	49	70	110	156	402	873	946	784	269	29	-
Kalkaska	199	-	-	-	8	11	16	35	72	48	33	10	1	-
Kent	9,081	19	70	132	200	305	329	1,036	2,211	2,906	2,087	722	98	2
Keweenaw	20	-	-	-	-	-	2	2	4	7	5	2	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.12 (continued)
Live Births by Age of Mother and County of Residence
Michigan Residents, 1992

Area	Total	Age of Mother												
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 and Over	Age Not Stated
Lake	107	2	2	2	4	6	6	20	42	28	11	4	-	-
Lapeer	1,016	-	2	5	22	23	39	91	304	349	215	53	4	-
Leelanau	216	-	-	2	4	5	7	18	33	68	59	36	2	-
Lenawee	1,247	2	7	11	31	55	72	176	348	378	247	88	8	-
Livingston	1,596	-	1	6	14	25	35	81	277	552	481	179	26	-
Luce	74	-	1	1	1	4	2	9	31	16	15	2	1	-
Mackinac	135	-	3	-	1	6	8	18	40	43	24	10	-	-
Macomb	9,828	8	16	57	113	152	272	610	1,966	3,620	2,671	838	106	9
Manistee	243	-	1	-	11	6	11	29	60	77	51	21	4	1
Marquette	921	-	1	8	13	26	41	89	268	290	192	69	13	-
Mason	322	1	-	4	7	13	17	41	90	101	63	23	3	-
Mecosta	412	1	1	5	11	27	30	74	127	123	66	15	6	-
Menominee	268	1	-	4	3	13	9	29	83	82	42	27	4	-
Midland	1,137	1	5	9	14	27	40	95	284	358	288	92	19	-
Missaukee	190	-	-	3	5	8	8	24	76	53	26	9	2	-
Monroe	1,845	-	13	26	44	55	83	221	517	609	363	115	20	-
Montcalm	824	2	2	11	23	39	57	132	299	217	132	37	4	1
Montmorency	81	-	-	2	4	4	7	17	24	23	14	3	-	-
Muskegon	2,541	7	25	56	84	128	134	427	790	698	464	136	19	-
Newaygo	674	3	3	14	18	27	38	100	220	201	103	42	5	-
Oakland	16,343	18	46	113	231	301	439	1,130	2,750	5,155	5,118	1,893	275	4
Oceana	344	2	-	4	7	13	15	39	122	85	79	13	4	-
Ogemaw	264	1	-	5	11	11	14	41	94	74	35	13	4	2
Ontonagon	88	-	-	-	2	3	7	12	40	22	10	3	1	-
Osceola	313	-	1	6	10	16	21	54	92	88	57	20	2	-
Oscoda	103	-	-	3	1	4	5	13	34	25	16	14	1	-
Otsego	288	-	1	1	5	7	16	30	93	93	52	17	3	-
Ottawa	3,193	3	5	26	52	80	96	259	676	1,186	803	240	24	2
Presque Isle	145	-	-	1	2	3	3	9	39	56	28	10	3	-
Roscommon	237	-	1	2	9	14	21	47	77	63	36	11	3	-
Saginaw	3,534	12	44	88	128	166	207	633	955	1,008	681	205	40	-
St. Clair	2,110	1	13	17	33	86	96	245	605	676	430	128	20	5
St. Joseph	811	1	5	14	27	28	50	124	267	220	139	46	11	3
Sanilac	501	-	2	5	10	18	13	48	172	153	95	32	1	-
Schoolcraft	90	-	-	-	-	9	5	14	20	28	22	6	-	-
Shiawassee	980	2	3	15	24	39	55	136	278	299	192	59	14	-
Tuscola	811	2	5	5	17	29	31	87	255	263	150	48	6	-
Van Buren	1,109	4	9	18	39	52	69	187	365	297	171	74	9	2
Washtenaw	4,093	5	8	30	59	89	133	319	730	1,244	1,176	527	91	1
Wayne	37,264	178	402	737	1,175	1,668	2,146	6,128	10,589	10,009	7,174	2,728	442	16
Wexford	408	-	2	2	9	10	19	42	120	126	88	31	1	-
Co. Not Stated	27	-	-	-	1	2	-	3	9	7	4	3	-	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.13
Vital Statistics for Residents of Selected Michigan Cities[1]
1992

Area	Live Births	Deaths	Infant Deaths		Fetal Deaths	
			Number	Rate	Number	Rate
Allen Park	324	360	2	*	4	*
Ann Arbor	1,484	506	7	4.7	8	5.4
Battle Creek	1,189	613	10	8.4	7	5.9
Bay City	714	426	8	11.2	4	*
Burton City	349	235	2	*	3	*
Dearborn	1,570	895	12	7.6	6	3.8
Dearborn Heights	734	571	7	9.5	3	*
Detroit	21,548	11,255	462	21.4	105	4.8
East Detroit	479	390	1	*	4	*
East Lansing	388	160	3	*	2	*
Farmington Hills	944	496	1	*	6	6.3
Ferndale	477	292	3	*	4	*
Flint	3,526	1,481	50	14.2	15	4.2
Garden City	441	239	3	*	3	*
Grand Rapids	4,065	1,768	40	9.8	18	4.4
Highland Park	402	274	8	19.9	1	*
Holland	670	299	4	*	3	*
Inkster	599	347	12	20.0	1	*
Jackson	885	395	7	7.9	20	22.1
Kalamazoo	1,516	688	20	13.2	14	9.2
Kentwood	717	157	4	*	4	*
Lansing	2,609	981	19	7.3	9	3.4
Lincoln Park	574	406	9	15.7	3	*
Livonia	1,224	919	7	5.7	6	4.9
Madison Heights	492	269	3	*	1	*
Midland	540	270	5	*	5	*
Muskegon	884	436	11	12.4	8	9.0
Oak Park	517	243	5	*	1	*
Pontiac	1,656	638	30	18.1	11	6.6
Portage	535	238	5	*	4	*
Port Huron	598	373	8	13.4	2	*
Roseville	754	454	3	*	1	*
Royal Oak	914	525	4	*	6	6.5
Saginaw	1,838	701	36	19.6	13	7.0
St. Clair Shores	750	794	1	*	4	*
Southfield	991	777	9	9.1	8	8.0
Southgate	385	280	2	*	1	*
Sterling Heights	1,515	720	5	*	2	*
Taylor	1,175	508	11	9.4	8	6.8
Troy	889	392	4	*	7	7.8
Warren	1,855	1,373	13	7.0	6	3.2
Westland	1,307	727	8	6.1	6	4.6
Wyandotte	406	336	1	*	6	14.6
Wyoming	1,163	355	11	9.5	2	*

[1] 25,000 population or over according to the 1980 Census.

[2] On January 1, 1983, Battle Creek City annexed Battle Creek Township. The data shown for Battle Creek in this table are for the current boundaries of Battle Creek, and thus are not comparable to data for Battle Creek for earlier years. The infant death rate in 1982 for the area which is now Battle Creek was 15.9.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms							
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Michigan	78,916	49	1,463	19,217	4,452	5,724	1,597	2,269	841	714	3,620
Alcona	159	1	7	41	6	20	2	2	3	1	7
Alger	118	-	1	24	5	10	2	4	-	-	3
Allegan	669	-	6	158	40	35	5	21	11	2	44
Alpena	298	-	1	89	22	28	4	7	3	1	24
Antrim	223	-	2	55	8	15	8	9	4	3	8
Arenac	176	-	-	43	10	15	6	3	2	1	6
Baraga	95	-	1	20	3	5	2	3	1	1	5
Barry	381	1	3	91	18	26	8	7	4	5	23
Bay	1,012	-	13	250	67	76	14	21	9	15	48
Benzie	114	-	2	39	4	19	3	5	2	2	4
Berrien	1,449	-	16	379	97	96	36	49	17	17	67
Branch	385	-	5	102	20	38	4	12	5	5	18
Calhoun	1,377	-	22	320	82	93	15	42	12	14	62
Cass	453	-	3	106	28	31	9	12	7	3	16
Charlevoix	212	-	2	57	10	24	3	7	4	-	9
Cheboygan	244	-	3	72	16	23	4	9	4	1	15
Chippewa	283	1	5	65	13	20	4	13	-	4	11
Clare	316	-	4	85	21	28	4	8	5	-	19
Clinton	373	-	5	87	18	26	10	11	-	-	22
Crawford	134	-	1	36	10	13	2	4	1	1	5
Delta	368	-	6	104	32	28	6	11	3	3	21
Dickinson	307	-	1	64	9	24	5	6	4	2	14
Eaton	620	-	16	168	43	47	13	14	7	5	39
Emmet	255	-	3	68	14	18	8	7	1	4	16
Genesee	3,642	5	63	872	204	297	70	94	21	40	146
Gladwin	267	-	2	65	17	22	4	2	3	4	13
Gogebic	264	-	7	69	19	20	4	12	4	5	5
Grand Traverse	501	1	6	135	29	52	9	12	6	9	18
Gratiot	398	-	2	69	15	20	8	4	3	3	16
Hillsdale	389	-	7	86	25	25	1	8	7	1	19
Houghton	409	-	1	106	27	27	9	19	4	2	18
Huron	417	-	3	92	24	22	9	16	3	2	16
Ingham	1,837	-	38	472	107	134	44	45	23	21	98
Ionia	388	-	6	94	13	30	5	14	9	4	19
Iosco	306	-	2	86	27	20	9	10	5	3	12
Iron	222	-	2	60	16	17	8	7	2	1	9
Isabella	344	-	1	83	19	22	5	6	5	1	25
Jackson	1,292	-	19	302	56	84	31	34	20	8	69
Kalamazoo	1,671	-	34	401	82	110	43	48	22	21	75
Kalkaska	104	-	2	22	6	8	1	2	3	-	2
Kent	3,496	1	69	846	195	226	84	98	47	26	170

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms							
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Keweenaw	30	-	-	5	-	3	-	-	-	-	2
Lake	129	-	1	44	15	16	3	2	2	-	6
Lapeer	504	-	8	127	21	42	9	17	9	2	27
Leelanau	132	1	3	28	7	9	2	3	3	-	4
Lenawee	783	1	7	197	48	46	15	25	10	13	40
Livingston	726	-	15	206	42	56	14	26	17	13	38
Luce	73	-	-	17	6	5	-	-	1	1	4
Mackinac	120	-	1	27	6	10	1	3	-	3	4
Macomb	5,873	4	98	1572	352	507	137	163	64	63	286
Manistee	280	-	2	67	8	19	6	16	4	2	12
Marquette	529	-	4	120	32	33	7	18	7	7	16
Mason	250	-	-	61	14	19	6	11	2	1	8
Mecosta	268	-	3	76	14	15	6	12	7	1	21
Menominee	255	-	3	60	14	15	2	11	2	2	14
Midland	469	-	4	106	21	38	9	11	7	2	18
Missaukee	121	-	1	24	2	6	2	5	2	2	5
Monroe	960	-	11	251	51	91	21	28	13	7	40
Montcalm	445	-	9	88	19	25	2	13	6	3	20
Montmorency	121	-	1	30	6	9	3	4	1	2	5
Muskegon	1,433	2	25	341	81	80	28	51	15	9	77
Newaygo	349	-	4	86	22	27	2	8	3	4	20
Oakland	7,956	4	150	2035	421	602	197	223	69	100	423
Oceana	224	1	-	57	14	13	6	8	-	3	13
Ogemaw	261	-	1	78	23	19	7	12	9	1	7
Ontonagon	123	-	-	21	6	7	1	2	3	-	2
Osceola	205	-	3	46	10	9	4	4	3	3	13
Oscoda	98	-	-	27	3	9	1	4	2	2	6
Otsego	148	-	1	32	7	12	5	4	-	-	4
Ottawa	1,152	1	16	277	95	46	21	37	11	14	53
Presque Isle	163	-	2	48	11	15	2	2	1	3	14
Roscommon	280	-	-	67	15	25	4	7	2	3	11
Saginaw	1,778	1	31	445	105	124	36	52	22	25	81
St. Clair	1,277	-	13	332	70	111	24	39	16	13	59
St. Joseph	562	-	8	133	26	43	7	21	11	3	22
Sanilac	450	-	2	117	29	33	7	18	7	2	21
Schoolcraft	96	-	-	22	6	9	-	4	-	-	3
Shiawassee	558	1	6	144	32	37	14	12	8	9	32
Tuscola	447	-	1	115	28	34	8	14	2	7	22
Van Buren	627	-	7	157	39	38	10	31	9	1	29
Washtenaw	1,593	-	45	413	79	108	44	50	20	16	96
Wayne	20,857	23	583	4685	1,165	1,453	400	571	172	128	796
Wexford	242	-	2	50	10	12	3	9	3	3	10
Co. Not Stated	1	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases						Pneumonia and Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum	Chronic Liver Disease and Cirrhosis
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebrovascular Disease	Atherosclerosis	Other Diseases of Arteries, Arterioles, and Capillaries				
Michigan	2,114	148	34,024	26,863	341	5,087	774	959	2,697	3,076	228	947
Alcona	4	-	64	46	-	13	4	1	6	6	1	6
Alger	3	-	58	41	1	13	-	3	5	4	1	3
Allegan	20	3	297	233	5	42	10	7	24	32	1	8
Alpena	7	1	137	112	-	18	1	6	7	9	-	5
Antrim	4	-	96	73	1	15	5	2	15	8	1	1
Arenac	4	-	80	69	-	8	1	2	5	9	1	1
Baraga	1	-	47	39	1	7	-	-	5	2	-	2
Barry	13	-	163	126	1	25	3	8	16	13	1	4
Bay	36	1	463	379	5	49	17	13	19	41	3	15
Benzie	2	-	43	31	-	9	-	3	3	5	1	1
Berrien	35	3	630	462	9	115	23	21	51	52	5	12
Branch	16	-	154	123	2	23	1	5	11	18	2	6
Calhoun	39	4	587	431	8	105	24	19	64	67	6	12
Cass	11	-	209	160	2	37	3	7	19	20	3	4
Charlevoix	4	-	85	67	-	14	-	4	6	6	-	1
Cheboygan	5	-	101	82	-	14	2	3	10	7	-	2
Chippewa	7	-	113	91	1	18	1	2	10	21	1	4
Clare	7	-	143	116	-	21	-	6	15	18	1	3
Clinton	11	-	152	117	-	25	5	5	14	11	1	3
Crawford	3	3	48	34	1	8	5	-	9	5	1	2
Delta	15	1	156	117	2	27	3	7	6	10	3	4
Dickinson	11	2	146	104	4	23	6	9	6	12	2	5
Eaton	15	2	243	184	-	40	10	9	31	33	1	4
Emmet	6	-	93	77	3	10	-	3	12	15	-	3
Genesee	100	12	1,603	1,276	23	230	35	39	100	158	10	30
Gladwin	-	1	133	103	1	25	1	3	11	16	2	-
Gogebic	5	-	117	85	2	26	-	4	11	11	1	2
GrandTraverse	12	-	214	166	5	33	6	4	12	19	-	4
Gratiot	10	-	205	165	2	29	4	5	32	18	-	3
Hillsdale	18	-	140	116	3	18	1	2	18	20	1	4
Houghton	4	-	186	142	-	35	4	5	21	12	2	3
Huron	10	-	214	159	-	44	7	4	9	14	3	7
Ingham	46	1	750	593	9	108	15	25	68	82	6	9
Ionia	9	1	171	137	4	18	5	7	9	14	3	4
Iosco	7	1	142	107	-	22	7	6	6	17	1	2
Iron	7	1	89	66	-	16	3	4	14	11	-	2
Isabella	11	-	155	124	1	19	7	4	14	7	2	2
Jackson	27	5	552	439	2	82	12	17	53	77	3	9
Kalamazoo	35	5	661	511	7	114	15	14	85	85	9	19
Kalkaska	3	1	54	40	-	7	7	-	-	4	1	-
Kent	79	5	1,423	1,094	13	233	30	53	165	147	16	26

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases						Pneumonia and Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum	Chronic Liver Disease and Cirrhosis
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebro-vascular Disease	Athero-sclerosis	Other Diseases of Arteries, Arterioles, and Capillaries				
Keweenaw	-	-	19	15	-	4	-	-	2	1	-	-
Lake	2	-	58	48	1	7	1	1	1	7	-	-
Lapeer	14	-	224	175	3	39	3	4	20	21	1	6
Leelanau	4	1	52	44	-	6	2	-	9	10	-	2
Lenawee	21	-	366	272	4	62	12	16	15	42	-	7
Livingston	13	2	307	248	2	40	7	10	15	33	2	13
Luce	1	-	27	16	-	10	-	1	6	3	-	1
Mackinac	2	-	45	38	-	6	-	1	2	6	-	2
Macomb	157	8	2,637	2,028	21	421	103	64	203	208	14	76
Manistee	9	-	136	105	1	17	9	4	8	10	-	3
Marquette	15	1	226	174	1	38	6	7	20	19	3	7
Mason	7	1	120	83	2	22	7	6	8	5	-	1
Mecosta	7	-	107	86	1	14	1	5	14	13	-	4
Menominee	4	2	119	89	2	18	8	2	7	10	-	9
Midland	9	-	200	146	2	29	8	15	18	22	2	5
Missaukee	4	-	55	44	-	9	-	2	4	11	1	-
Monroe	26	2	456	378	3	53	6	16	23	40	1	8
Montcalm	21	-	206	169	1	22	3	11	12	21	-	6
Montmorency	1	-	59	49	-	8	-	2	6	6	-	3
Muskegon	39	1	648	494	5	108	18	23	49	49	2	14
Newaygo	9	-	156	128	1	20	6	1	21	17	-	2
Oakland	174	15	3,577	2,820	28	583	59	87	226	290	15	91
Oceana	5	-	93	73	1	10	8	1	11	10	1	1
Ogemaw	9	1	114	90	2	17	5	-	8	12	1	3
Ontonagon	9	-	60	40	-	12	6	2	5	2	1	-
Osceola	5	-	89	73	-	11	1	4	5	12	1	1
Oscoda	2	-	47	40	-	7	-	-	2	6	-	-
Otsego	3	-	69	46	-	16	4	3	9	9	1	-
Ottawa	24	4	472	354	9	76	12	21	50	51	2	13
PresqueIsle	2	-	63	46	1	13	-	3	9	8	2	5
Roscommon	9	1	137	109	1	18	2	7	5	19	1	3
Saginaw	57	2	765	569	7	139	23	27	49	68	4	16
StClair	34	2	588	472	4	89	8	15	32	58	5	11
StJoseph	32	2	227	178	2	36	6	5	26	30	2	3
Sanilac	19	1	185	138	3	34	2	8	6	15	1	5
Schoolcraft	4	1	39	34	-	3	-	2	7	3	-	-
Shiawassee	23	2	222	168	1	30	13	10	22	24	3	3
Tuscola	25	3	180	136	2	30	5	7	14	20	2	5
VanBuren	15	-	255	187	1	47	10	10	19	28	5	5
Washtenaw	51	3	617	484	9	100	11	13	53	52	3	15
Wayne	574	39	8,771	7,258	101	1,105	111	196	664	662	56	360
Wexford	11	1	114	82	1	20	5	6	15	7	-	1
Co.NotStated	-	-	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complications of Pregnancy, Childbirth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Perinatal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Intervention	All Other External Causes
							Total	Motor Vehicle	All Other			
Michigan	887	15	434	793	416	7,346	2,844	1,426	1,418	1,063	1,047	108
Alcona	3	-	-	-	-	12	5	5	-	3	-	-
Alger	-	-	-	-	-	11	4	1	3	2	2	-
Allegan	7	-	3	4	6	58	30	16	14	12	-	-
Alpena	-	-	1	-	1	28	7	4	3	5	-	-
Antrim	3	-	-	-	3	20	13	8	5	2	-	-
Arenac	3	-	2	-	-	22	5	2	3	1	-	-
Baraga	-	-	-	1	-	11	4	3	1	1	-	-
Barry	2	-	3	1	4	38	18	9	9	7	3	-
Bay	11	-	8	6	6	67	54	31	23	13	6	-
Benzie	-	-	-	-	1	12	3	2	1	2	-	-
Berrien	22	-	12	11	14	132	46	21	25	13	16	-
Branch	6	-	1	3	1	34	20	12	8	5	1	-
Calhoun	9	-	5	5	8	145	55	26	29	19	10	-
Cass	5	-	2	-	4	28	32	22	10	3	4	-
Charlevoix	2	-	1	2	1	29	12	5	7	3	1	-
Cheboygan	-	-	-	1	2	26	8	6	2	5	1	1
Chippewa	1	-	-	-	3	37	9	5	4	4	2	-
Clare	4	-	-	1	2	20	8	4	4	4	1	-
Clinton	5	-	4	3	2	51	21	14	7	3	-	-
Crawford	1	-	1	1	1	10	10	3	7	2	-	-
Delta	4	-	1	2	1	39	11	7	4	5	-	-
Dickinson	6	-	-	2	-	30	16	4	12	4	-	-
Eaton	5	-	2	-	2	60	30	11	19	8	-	-
Emmet	2	-	3	3	1	34	8	6	2	2	2	-
Genesee	54	1	24	33	25	312	146	69	77	33	57	4
Gladwin	2	-	1	-	1	22	7	6	1	4	-	-
Gogebic	3	-	-	-	-	29	4	2	2	3	2	-
Grand Traverse	5	-	5	5	2	55	19	9	10	7	-	-
Gratiot	4	-	4	2	2	30	11	7	4	5	1	-
Hillsdale	10	-	2	1	5	40	28	15	13	6	3	-
Houghton	9	-	-	-	-	40	18	13	5	6	1	-
Huron	5	-	2	3	1	31	16	10	6	7	-	-
Ingham	12	-	7	11	20	202	73	37	36	28	11	1
Ionia	4	-	1	5	2	40	22	16	6	3	-	-
Iosco	3	-	-	-	-	23	11	4	7	4	1	-
Iron	1	-	1	-	-	25	8	2	6	1	-	-
Isabella	1	-	3	3	1	33	22	12	10	4	2	-
Jackson	13	-	8	9	7	128	49	28	21	25	5	1
Kalamazoo	17	-	11	15	10	198	63	29	34	19	4	-
Kalkaska	1	-	1	-	1	8	4	3	1	2	-	-
Kent	37	-	32	30	29	381	137	70	67	49	21	3

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County of Residence
Michigan Residents, 1992

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complications of Pregnancy, Childbirth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Perinatal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Intervention	All Other External Causes
							Total	Motor Vehicle	All Other			
Keweenaw	-	-	-	-	-	1	-	-	-	2	-	-
Lake	2	-	1	1	-	5	2	1	1	2	3	-
Lapeer	4	-	2	6	4	32	28	22	6	4	2	1
Leelanau	1	-	1	-	1	12	6	3	3	1	-	-
Lenawee	7	-	1	7	-	69	34	26	8	7	1	1
Livingston	8	-	1	2	2	55	30	18	12	19	2	1
Luce	2	-	-	2	-	10	3	2	1	-	1	-
Mackinac	3	-	1	-	-	22	4	2	2	4	1	-
Macomb	68	-	25	30	13	483	163	83	80	78	32	4
Manistee	-	-	-	4	2	29	6	1	5	4	-	-
Marquette	6	-	7	7	1	65	17	7	10	9	1	1
Mason	4	-	3	-	2	18	15	9	6	5	-	-
Mecosta	2	-	2	1	1	20	15	4	11	3	-	-
Menominee	8	-	-	1	-	20	9	2	7	3	-	-
Midland	4	-	9	4	1	52	17	9	8	13	2	1
Missaukee	-	1	-	1	1	5	10	9	1	2	1	-
Monroe	6	-	6	1	5	70	36	17	19	15	2	1
Montcalm	7	-	1	2	2	40	22	14	8	6	2	-
Montmorency	1	-	-	-	-	11	2	1	1	-	1	-
Muskegon	14	-	3	12	5	143	55	20	35	22	9	-
Newaygo	2	-	1	4	2	21	18	12	6	5	1	-
Oakland	90	2	45	75	33	708	204	94	110	141	59	22
Oceana	2	-	-	1	1	29	8	2	6	4	-	-
Ogemaw	3	-	1	2	1	13	12	5	7	2	-	-
Ontonagon	2	-	1	-	-	13	6	3	3	2	1	-
Osceola	1	-	-	3	1	21	12	5	7	3	2	-
Oscoda	3	-	-	-	-	8	3	1	2	-	-	-
Otsego	2	-	1	-	-	13	7	6	1	1	-	-
Ottawa	13	-	9	2	6	131	57	34	23	18	5	1
PresqueIsle	5	-	-	2	-	14	3	1	2	-	-	-
Roscommon	2	-	1	1	-	22	5	2	3	4	1	2
Saginaw	18	-	11	34	7	140	64	30	34	24	39	3
St. Clair	14	-	8	9	2	96	43	24	19	22	8	-
St. Joseph	6	-	4	5	3	46	27	13	14	7	1	-
Sanilac	6	-	1	6	4	53	24	14	10	4	1	-
Schoolcraft	3	-	-	-	1	11	3	2	1	2	-	-
Shiawassee	5	-	1	2	1	55	37	24	13	6	1	-
Tuscola	7	-	3	1	-	35	23	12	11	13	-	-
Van Buren	4	1	7	3	3	64	44	21	23	5	5	-
Washtenaw	10	1	8	25	9	185	66	26	40	26	9	2
Wayne	259	9	116	374	133	1,929	628	283	345	238	696	58
Wexford	1	-	2	-	-	26	9	3	6	3	-	-
Co. Not Stated	-	-	-	-	-	-	-	-	-	-	1	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.15
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1992

Area	Total	Gonorrhea	Chicken Pox	Hepatitis (all types)	Salmo- nella Infections	Tubercu- losis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningo- coccal Infections	Whoop- ing Cough
Michigan	60,155	21,470	34,805	1,238	872	496	1,022	85	49	13	2	87	16
Alcona	3	-	-	-	1	1	1	-	-	-	-	-	-
Alger	-	-	-	-	-	-	-	-	-	-	-	-	-
Allegan	185	12	161	8	4	-	-	-	-	-	-	-	-
Alpena	46	-	39	1	4	1	-	-	-	-	-	-	1
Antrim	17	-	16	-	1	-	-	-	-	-	-	-	-
Arenac	-	-	-	-	-	-	-	-	-	-	-	-	-
Baraga	1	-	-	-	-	-	1	-	-	-	-	-	-
Barry	157	8	141	2	4	1	-	-	-	-	-	1	-
Bay	424	24	387	7	4	-	1	-	-	-	-	1	-
Benzie	21	-	16	3	-	2	-	-	-	-	-	-	-
Berrien	2,281	928	1,247	22	17	12	50	1	3	1	-	-	-
Branch	109	5	98	1	3	-	-	1	1	-	-	-	-
Calhoun	402	247	84	28	11	14	8	2	4	-	-	4	-
Cass	276	79	179	16	2	-	-	-	-	-	-	-	-
Charlevoix	123	-	119	1	3	-	-	-	-	-	-	-	-
Cheboygan	28	-	24	1	1	1	-	1	-	-	-	-	-
Chippewa	68	4	53	-	6	3	1	-	-	-	-	1	-
Clare	92	-	86	1	2	1	-	1	1	-	-	-	-
Clinton	33	6	16	-	5	1	-	2	2	-	-	1	-
Crawford	106	1	105	-	-	-	-	-	-	-	-	-	-
Delta	112	-	105	4	1	2	-	-	-	-	-	-	-
Dickinson	52	-	49	1	-	-	-	2	-	-	-	-	-
Eaton	650	19	619	2	3	4	2	1	-	-	-	-	-
Emmet	10	-	5	2	3	-	-	-	-	-	-	-	-
Genesee	2,150	1,592	470	27	21	15	22	-	-	-	-	2	1
Gladwin	18	-	17	-	1	-	-	-	-	-	-	-	-
Gogebic	41	-	40	-	-	-	-	-	-	1	-	-	-
Grand Traverse	169	1	150	6	9	-	-	-	-	-	-	2	1
Gratiot	280	9	264	2	1	-	-	3	-	-	-	1	-
Hillsdale	126	5	100	13	4	2	-	1	1	-	-	-	-
Houghton	106	-	104	1	1	-	-	-	-	-	-	-	-
Huron	59	2	54	1	-	2	-	-	-	-	-	-	-
Ingham	1,513	792	630	15	49	12	3	1	3	-	2	2	4
Ionia	188	5	178	3	2	-	-	-	-	-	-	-	-
Iosco	41	1	32	-	5	2	-	-	-	-	-	1	-
Iron	6	-	6	-	-	-	-	-	-	-	-	-	-
Isabella	447	11	418	-	8	-	-	-	9	-	-	1	-
Jackson	381	154	140	58	14	4	8	1	2	-	-	-	-
Kalamazoo	1,005	535	380	47	28	7	4	-	1	-	-	3	-
Kalkaska	41	-	38	1	1	-	-	-	-	-	-	1	-
Kent	3,060	1,442	1,429	68	33	22	60	1	2	-	-	3	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.15 (continued)
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1992

Area	Total	Gonorrhea	Chicken Pox	Hepatitis (all types)	Salmonella Infections	Tuberculosis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningococcal Infections	Whooping Cough
Keweenaw	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake	6	4	-	-	2	-	-	-	-	-	-	-	-
Lapeer	401	7	384	1	3	1	-	2	1	-	-	2	-
Leelanau	70	-	65	1	1	1	-	1	1	-	-	-	-
Lenawee	307	15	268	13	8	2	-	-	-	-	-	1	-
Livingston	272	9	234	12	7	2	1	3	-	-	-	4	-
Luce	-	-	-	-	-	-	-	-	-	-	-	-	-
Mackinac	1	1	-	-	-	-	-	-	-	-	-	-	-
Macomb	3,539	127	3,228	73	64	22	16	-	2	-	-	6	1
Manistee	19	3	14	-	1	-	1	-	-	-	-	-	-
Marquette	265	9	219	24	8	2	-	-	-	-	-	3	-
Mason	14	5	5	-	1	2	-	-	-	-	-	1	-
Mecosta	135	23	107	1	3	1	-	-	-	-	-	-	-
Menominee	174	1	171	1	1	-	-	-	-	-	-	-	-
Midland	417	3	402	-	9	3	-	-	-	-	-	-	-
Missaukee	99	-	96	2	1	-	-	-	-	-	-	-	-
Monroe	1,197	29	1,141	10	11	2	-	3	-	-	-	-	1
Montcalm	93	3	78	6	4	-	2	-	-	-	-	-	-
Montmorency	15	-	5	5	4	1	-	-	-	-	-	-	-
Muskegon	1,373	884	208	176	8	16	81	-	-	-	-	-	-
Newaygo	104	9	75	8	5	1	-	1	-	-	-	4	1
Oakland	7,041	1,261	5,397	93	167	50	27	21	5	10	-	8	2
Oceana	77	2	70	3	2	-	-	-	-	-	-	-	-
Ogemaw	80	1	77	2	-	-	-	-	-	-	-	-	-
Ontonagon	4	-	3	-	-	1	-	-	-	-	-	-	-
Osceola	1	1	-	-	-	-	-	-	-	-	-	-	-
Oscoda	1	1	-	-	-	-	-	-	-	-	-	-	-
Otsego	30	-	25	1	2	-	-	1	-	-	-	1	-
Ottawa	732	41	638	26	17	2	2	-	1	-	-	4	1
Presque Isle	8	-	8	-	-	-	-	-	-	-	-	-	-
Roscommon	53	3	45	4	-	1	-	-	-	-	-	-	-
Saginaw	1,456	886	532	4	12	7	14	-	1	-	-	-	-
St. Clair	1,522	91	1,396	13	10	6	3	-	-	-	-	3	-
St. Joseph	327	15	291	15	5	1	-	-	-	-	-	-	-
Sanilac	27	6	13	1	4	-	-	2	-	-	-	1	-
Schoolcraft	32	-	32	-	-	-	-	-	-	-	-	-	-
Shiawassee	176	5	162	2	5	-	-	-	-	-	-	1	1
Tuscola	51	-	39	6	4	2	-	-	-	-	-	-	-
Van Buren	130	75	49	-	-	1	4	-	-	-	-	1	-
Washtenaw	449	279	61	19	43	11	27	1	3	1	-	2	2
Wayne	24,473	11,789	11,113	374	208	249	682	32	6	-	-	20	-
Wexford	157	-	155	-	-	-	1	-	-	-	-	1	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.16
Number of Deaths by Cause
Michigan Residents, 1992

ICD List Number	Cause of Death	Number
	I. INFECTIOUS AND PARASITIC DISEASES (001-139)	
8	Intestinal infections due to other organisms	7
9	Ill-defined intestinal infections	3
11	Pulmonary tuberculosis	37
12	Other respiratory tuberculosis	1
13	Tuberculosis of meninges and central nervous system	1
17	Tuberculosis of other organs	5
18	Miliary tuberculosis	5
27	Other zoonotic bacterial diseases	1
31	Diseases due to other mycobacteria	4
36	Meningococcal infection	5
38	Septicemia	622
40	Other bacterial diseases	4
41	Bacterial infection in conditions classified elsewhere and of unspecified site	15
42	Human Immunodeficiency Virus Infection With Specified Conditions	529
43	Human Immunodeficiency Virus Infection Causing Other Specified Conditions	18
44	Other Human Immunodeficiency Virus Infection	26
46	Slow virus infection of central nervous system	17
47	Meningitis due to enterovirus	1
48	Other enterovirus diseases of central nervous system	1
49	Other non-arthropod-borne viral diseases of central nervous system	9
52	Chickenpox	3
53	Herpes zoster	2
54	Herpes simplex	3
70	Viral hepatitis	55
77	Other diseases of conjunctiva due to viruses and Chlamydiae	1
78	Other diseases due to viruses and Chlamydiae	5
79	Viral infection in conditions classified elsewhere and of unspecified site	8
93	Cardiovascular syphilis	1
94	Neurosyphilis	1
97	Other and unspecified syphilis	1
112	Candidiasis	24
114	Coccidioidomycosis	1
115	Histoplasmosis	1
117	Other mycoses	21
127	Other intestinal helminthiases	3
128	Other and unspecified helminthiases	1
135	Sarcoidosis	27
136	Other and unspecified infections and parasitic diseases	28
137	Late effects of tuberculosis	7
138	Late effects of acute poliomyelitis	7
139	Late effects of other infectious and parasitic diseases	1
	II. NEOPLASMS (140-239)	
140	Malignant neoplasm of lip	1
141	Malignant neoplasm of tongue	66
142	Malignant neoplasm of major salivary glands	19
143	Malignant neoplasm of gum	6
144	Malignant neoplasm of floor of mouth	13
145	Malignant neoplasm of other and unspecified parts of mouth	49
146	Malignant neoplasm of oropharynx	43
147	Malignant neoplasm of nasopharynx	17

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
148	Malignant neoplasm of hypopharynx	23
149	Malignant neoplasm of other and ill-defined sites within the lip, oral cavity and pharynx	43
150	Malignant neoplasm of oesophagus	404
151	Malignant neoplasm of stomach	490
152	Malignant neoplasm of small intestine, including duodenum	24
153	Malignant neoplasm of colon	1,746
154	Malignant neoplasm of rectum, rectosigmoid junction and anus	295
155	Malignant neoplasm of liver and intrahepatic bile ducts	306
156	Malignant neoplasm of gallbladder and extrahepatic bile ducts	152
157	Malignant neoplasm of pancreas	9[illegible]
158	Malignant neoplasm of retroperitoneum and peritoneum	30
159	Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum	61
160	Malignant neoplasm of nasal cavities, middle ear and accessory sinuses	19
161	Malignant neoplasm of larynx	165
162	Malignant neoplasm of trachea, bronchus and lung	5,509
163	Malignant neoplasm of pleura	14
164	Malignant neoplasm of thymus, heart and mediastinum	17
170	Malignant neoplasm of bone and articular cartilage	46
171	Malignant neoplasm of connective and other soft tissue	93
172	Malignant melanoma of skin	165
173	Other malignant neoplasm of skin	53
174	Malignant neoplasm of female breast	1,583
175	Malignant neoplasm of male breast	14
179	Malignant neoplasm of uterus, part unspecified	114
180	Malignant neoplasm of cervix uteri	169
181	Malignant neoplasm of placenta	1
182	Malignant neoplasm of body of uterus	136
183	Malignant neoplasm of ovary and other uterine adnexa	475
184	Malignant neoplasm of other and unspecified female genital organs	49
185	Malignant neoplasm of prostate	1,299
186	Malignant neoplasm of testis	17
187	Malignant neoplasm of penis and other male genital organs	9
188	Malignant neoplasm of bladder	421
189	Malignant neoplasm of kidney and other and unspecified urinary organs	420
190	Malignant neoplasm of eye	9
191	Malignant neoplasm of brain	470
192	Malignant neoplasm of other and unspecified parts of nervous system	15
193	Malignant neoplasm of thyroid gland	37
194	Malignant neoplasm of other endocrine glands and related structures	26
195	Malignant neoplasm of other and ill-defined sites	153
199	Malignant neoplasm without specification of site	1,091
200	Lymphosarcoma and reticulosarcoma	47
201	Hodgkin's disease	68
202	Other malignant neoplasm of lymphoid and histiocytic tissue	699
203	Multiple myeloma and immunoproliferative neoplasms	368
204	Lymphoid leukemia	216
205	Myeloid leukemia	277
206	Monocytic leukemia	14
207	Other specified leukemia	5
208	Leukemia of unspecified cell type	202
211	Benign neoplasm of other parts of digestive system	5
212	Benign neoplasm of respiratory and intrathoracic organs	3
214	Lipoma	1
215	Other benign neoplasm of connective and other soft tissue	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
225	Benign neoplasm of brain and other parts of nervous system	32
227	Benign neoplasm of other endocrine glands and related structures	10
228	Haemangioma and lymphangioma, any site	1
229	Benign neoplasm of other and unspecified sites	3
233	Carcinoma in situ of breast and genitourinary system	1
235	Neoplasm of uncertain behavior of digestive and respiratory systems	7
236	Neoplasm of uncertain behavior of genitourinary organs	1
237	Neoplasm of uncertain behavior of endocrine glands and nervous system	6
238	Neoplasm of uncertain behavior of other and unspecified sites and tissues	45
239	Neoplasm of unspecified nature	110
	III. ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES AND IMMUNITY DISORDERS (240-279)	
242	Thyrotoxicosis with or without goitre	8
244	Acquired hypothyroidism	34
245	Thyroiditis	1
250	Diabetes mellitus	2,114
251	Other disorders of pancreatic internal secretion	9
252	Disorders of parathyroid gland	4
253	Disorders of the pituitary gland and its hypothalamic control	1
255	Disorders of adrenal glands	10
259	Other endocrine disorders	1
260	Kwashiorkor	1
261	Nutritional marasmus	10
263	Other and unspecified protein-calorie malnutrition	131
268	Vitamin D deficiency	1
269	Other nutritional deficiencies	5
270	Disorders of amino-acid transport and metabolism	1
271	Disorders of carbohydrate transport and metabolism	1
272	Disorders of lipoid metabolism	98
273	Disorders of plasma protein metabolism	16
274	Gout	2
275	Disorders of mineral metabolism	8
276	Disorders of fluid, electrolyte and acid-base balance	210
277	Other and unspecified disorders of metabolism	75
278	Obesity and other hyperalimentation	74
279	Disorders involving the immune mechanism	32
	IV. DISEASES OF BLOOD AND BLOOD-FORMING ORGANS (280-289)	
280	Iron deficiency anemias	2
281	Other deficiency anemias	5
282	Hereditary hemolytic anemias	20
283	Acquired hemolytic anemias	3
284	Aplastic anemias	44
285	Other and unspecified anemias	53
286	Coagulation defects	56
287	Purpura and other hemorrhagic conditions	19
288	Diseases of white blood cells	15
289	Other diseases of blood and blood-forming organs	100
	V. MENTAL DISORDERS (290-319)	
290	Senile and presenile organic psychotic conditions	314
291	Alcoholic psychoses	10
292	Drug psychoses	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
294	Other organic psychotic conditions (chronic)	1
295	Schizophrenic psychoses	8
296	Affective psychosis	1
298	Other nonorganic psychoses	182
300	Neurotic disorders	2
303	Alcohol dependence syndrome	175
304	Drug dependence	5
305	Nondependent abuse of drugs	163
307	Special symptoms or syndromes not elsewhere classified	8
308	Acute reaction to stress	3
309	Adjustment reaction	1
310	Specific nonpsychotic mental disorders following organic brain damage	111
311	Depressive disorder, not elsewhere classified	7
318	Other specified mental retardation	7
319	Unspecified mental retardation	11
	VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (320-389)	
320	Bacterial meningitis	15
322	Meningitis of unspecified cause	11
323	Encephalitis, myelitis and encephalomyelitis	8
324	Intracranial and intraspinal abscess	2
326	Late effects of intracranial abscess or pyogenic infection	1
330	Cerebral degenerations usually manifest in childhood	5
331	Other cerebral degenerations	461
332	Parkinson's disease	258
333	Other extrapyramidal disease and abnormal movement disorders	32
334	Spinocerebellar disease	12
335	Anterior horn cell disease	165
336	Other diseases of spinal cord	5
337	Disorders of the autonomic nervous system	1
340	Multiple sclerosis	96
341	Other demyelinating diseases of central nervous system	3
342	Hemiplegia	7
343	Infantile cerebral palsy	29
344	Other paralytic syndromes	27
345	Epilepsy	108
346	Migraine	2
348	Other conditions of brain	111
349	Other and unspecified disorders of the nervous system	6
355	Mononeuritis of lower limb	1
356	Hereditary and idiopathic peripheral neuropathy	22
357	Inflammatory and toxic neuropathy	8
358	Myoneural disorders	18
359	Muscular dystrophies and other myopathies	48
362	Other retinal disorders	1
382	Suppurative and unspecified otitis media	1
	VII. DISEASES OF THE CIRCULATORY SYSTEM (390-459)	
390	Rheumatic fever without mention of heart involvement	1
394	Diseases of mitral valve	98
395	Diseases of aortic valve	5
396	Diseases of mitral and aortic valves	36
397	Diseases of other endocardial structures	16
398	Other rheumatic heart disease	46

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
401	Essential hypertension	140
402	Hypertensive heart disease	673
403	Hypertensive renal disease	201
404	Hypertensive heart and renal disease	90
410	Acute myocardial infarction	9,565
411	Other acute and subacute form of ischemic heart disease	26
412	Old myocardial infarction	27
413	Angina pectoris	34
414	Other forms of chronic ischemic heart disease	8,901
415	Acute pulmonary heart disease	248
416	Chronic pulmonary heart disease	98
417	Other diseases of pulmonary circulation	1
420	Acute pericarditis	2
421	Acute and subacute endocarditis	27
422	Acute myocarditis	13
423	Other diseases of pericardium	21
424	Other diseases of endocardium	447
425	Cardiomyopathy	894
426	Conduction disorders	25
427	Cardiac dysrhythmias	769
428	Heart failure	1,407
429	Ill-defined descriptions and complications of heart disease	3,393
430	Subarachnoid hemorrhage	291
431	Intracerebral hemorrhage	626
432	Other and unspecified intracranial hemorrhage	139
433	Occlusion and stenosis of precerebral arteries	60
434	Occlusion of cerebral arteries	761
435	Transient cerebral ischemia	18
436	Acute but ill-defined cerebrovascular disease	2,480
437	Other and ill-defined cerebrovascular disease	332
438	Late effects of cerebrovascular disease	380
440	Atherosclerosis	774
441	Aortic aneurysm	641
442	Other aneurysm	20
443	Other peripheral vascular disease	158
444	Arterial embolism and thrombosis	44
446	Polyarteritis nodosa and allied conditions	50
447	Other disorders of arteries and arterioles	45
448	Diseases of capillaries	1
451	Phlebitis and thrombophlebitis	71
452	Portal vein thrombosis	4
453	Other venous embolism and thrombosis	18
454	Varicose veins of lower extremities	7
456	Varicose veins of other sites	10
457	Noninfective disorders of lymphatic channels	2
458	Hypotension	21
459	Other disorders of circulatory system	34
	VIII. DISEASES OF THE RESPIRATORY SYSTEM (460-519)	
464	Acute laryngitis and tracheitis	5
465	Acute upper respiratory infections of multiple or unspecified sites	3
466	Acute bronchitis and bronchiolitis	20
473	Chronic sinusitis	3
474	Chronic disease of tonsils and adenoids	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
478	Other diseases of upper respiratory tract	5
480	Viral pneumonia	20
481	Pneumococcal pneumonia	64
482	Other bacterial pneumonia	76
483	Pneumonia due to other specified organism	6
485	Bronchopneumonia, organism unspecified	108
486	Pneumonia, organism unspecified	2,386
487	Influenza	37
490	Bronchitis, not specified as acute or chronic	18
491	Chronic bronchitis	110
492	Emphysema	691
493	Asthma	165
494	Bronchiectasis	27
495	Extrinsic allergic alveolitis	2
496	Chronic airways obstruction, not elsewhere classified	2,063
500	Coalworkers' pneumoconiosis	4
501	Asbestosis	5
502	Pneumoconiosis due to other silica or silicates	4
505	Pneumoconiosis, unspecified	2
506	Respiratory conditions due to chemical fumes and vapors	1
507	Pneumonitis due to solids and liquids	248
510	Empyema	11
511	Pleurisy	35
512	Pneumothorax	12
513	Abscess of lung and mediastinum	12
514	Pulmonary congestion and hypostasis	16
515	Postinflammatory pulmonary fibrosis	253
516	Other alveolar and parietoalveolar pneumopathy	39
518	Other diseases of lung	151
519	Other diseases of respiratory system	27
	IX. DISEASES OF THE DIGESTIVE SYSTEM (520-579)	
522	Diseases of pulp and periapical tissues	1
527	Diseases of the salivary glands	3
530	Diseases of oesophagus	74
531	Gastric ulcer	85
532	Duodenal ulcer	64
533	Peptic ulcer, site unspecified	79
534	Gastrojejunal ulcer	2
535	Gastritis and duodenitis	30
536	Disorders of function of stomach	3
537	Other disorders of stomach and duodenum	15
540	Acute appendicitis	15
541	Appendicitis, unqualified	3
542	Other appendicitis	1
550	Inguinal hernia	12
551	Other hernia of abdominal cavity, with gangrene	4
552	Other hernia of abdominal cavity with obstruction, without mention of gangrene	10
553	Other hernia of abdominal cavity without mention of obstruction or gangrene	20
555	Regional enteritis	20
556	Idiopathic proctocolitis	12
557	Vascular insufficiency of intestine	263
558	Other noninfective gastroenteritis and colitis	45
560	Intestinal obstruction without mention of hernia	202

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
562	Diverticula of intestine	117
564	Functional digestive disorders, not elsewhere classified	9
565	Anal fissure and fistula	1
566	Abscess of anal and rectal regions	4
567	Peritonitis	65
568	Other disorders of peritoneum	5
569	Other disorders of intestine	78
570	Acute and subacute necrosis of liver	11
571	Chronic liver disease and cirrhosis	947
572	Liver abscess and sequelae of chronic liver disease	128
573	Other disorders of liver	58
574	Cholelithiasis	53
575	Other disorders of gallbladder	53
576	Other disorders of biliary tract	39
577	Diseases of pancreas	113
578	Gastrointestinal hemorrhage	221
579	Intestinal malabsorption	5
	X. DISEASES OF THE GENITOURINARY SYSTEM (580-629)	
580	Acute glomerulonephritis	4
581	Nephrotic syndrome	2
582	Chronic glomerulonephritis	39
583	Nephritis and nephropathy, not specified as acute or chronic	12
584	Acute renal failure	147
585	Chronic renal failure	241
586	Renal failure, unspecified	442
590	Infections of kidney	36
591	Hydronephrosis	3
592	Calculus of kidney and ureter	13
593	Other disorders of kidney and ureter	110
595	Cystitis	3
596	Other disorders of bladder	11
599	Other disorders of urethra and urinary tract	416
600	Hyperplasia of prostate	7
601	Inflammatory diseases of prostrate	1
602	Other disorders of prostate	4
604	Orchitis and epididymitis	1
608	Other disorders of male genital organs	3
611	Other disorders of breast	1
614	Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue and peritoneum	3
617	Endometriosis	1
618	Genital prolapse	1
619	Fistulae involving female genital tract	2
	XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM (630-676)	
633	Ectopic pregnancy	1
641	Antepartum hemorrhage, abruptio placentae, and placenta praevia	1
642	Hypertension complicating pregnancy, childbirth and the puerperium	3
646	Other complications of pregnancy, not elsewhere classified	1
666	Postpartum haemorrhage	2
671	Venous complications in pregnancy and the puerperium	3
673	Obstetrical pulmonary embolism	2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
674	Other and unspecified complications of the puerperium, not elsewhere classified	2
	XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (680-709)	
681	Cellulitis and abscess of finger and toe	1
682	Other cellulitis and abscess	20
686	Other local infections of skin and subcutaneous tissue	6
692	Contact dermatitis and other eczema	1
694	Bullous dermatoses	3
695	Erythematous conditions	10
696	Psoriasis and similar disorders	1
707	Chronic ulcer of skin	97
	XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (710-739)	
710	Diffuse diseases of connective tissue	82
711	Arthropathy associated with infections	5
714	Rheumatoid arthritis and other inflammatory polyarthropathies	60
715	Osteoarthrosis and allied disorders	18
716	Other and unspecified arthropathies	6
718	Other derangement of joint	2
720	Ankylosing spondylitis and other inflammatory spondylopathies	3
721	Spondylosis and allied disorders	2
722	Intervertebral disc disorders	2
724	Other and unspecified disorders of back	3
725	Polymyalgia rheumatica	2
728	Disorders of muscle, ligament and fascia	5
729	Other disorders of soft tissues	11
730	Osteomyelitis, periostitis and other infections involving bone	21
731	Osteitis deformans and osteopathies associated with other disorders classified elsewhere	6
732	Osteochondropathies	2
733	Other disorders of bone and cartilage	23
737	Curvature of spine	17
	XIV. CONGENITAL ANOMALIES (740-759)	
740	Anencephalus and similar anomalies	12
741	Spina bifida	6
742	Other congenital anomalies of nervous system	48
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	42
746	Other congenital anomalies of heart	101
747	Other congenital anomalies of circulatory system	36
748	Congenital anomalies of respiratory system	49
750	Other congenital anomalies of upper alimentary tract	4
751	Other congenital anomalies of digestive system	4
753	Congenital anomalies of urinary system	32
755	Other congenital anomalies of limbs	1
756	Other congenital musculoskeletal anomalies	23
757	Congenital anomalies of the integument	2
758	Chromosomal anomalies	44
759	Other and unspecified congenital anomalies	30
	XV. CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (760-779)	
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	10

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
761	Fetus or newborn affected by maternal complications of pregnancy	95
762	Fetus or newborn affected by complications of placenta, cord and membranes	38
763	Fetus or newborn affected by other complications of labor and delivery	2
764	Slow fetal growth and fetal malnutrition	3
765	Disorders relating to short gestation and unspecified low birthweight	285
767	Birth trauma	10
768	Intrauterine hypoxia and birth asphyxia	25
769	Respiratory distress syndrome	111
770	Other respiratory conditions of fetus and newborn	93
771	Infections specific to the perinatal period	37
772	Fetal and neonatal hemorrhage	11
775	Endocrine and metabolic disturbances specific to the fetus and newborn	2
776	Hematological disorders of fetus and newborn	2
777	Perinatal disorders of digestive system	22
778	Conditions involving the integument and temperature regulation of fetus and newborn	5
779	Other and ill-defined conditions originating in the perinatal period	42
	XVI. SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS (780-799)	
780	General symptoms	7
783	Symptoms concerning nutrition, metabolism and development	1
785	Symptoms involving cardiovascular system	23
786	Symptoms involving respiratory system and other chest symptoms	3
789	Other symptoms involving abdomen and pelvis	5
790	Nonspecific findings on examination of blood	1
791	Nonspecific findings on examination of urine	1
797	Senility without mention of psychosis	8
798	Sudden death, cause unknown	264
799	Other ill-defined and unknown causes of morbidity and mortality	103
	XVII. EXTERNAL CAUSES OF INJURY AND POISONING (E800-E999)	
E804	Fall in, on or from railway train	1
E805	Hit by rolling stock	16
E810	Motor vehicle traffic accident involving collision with train	29
E812	Other motor vehicle traffic accident involving collision with another motor vehicle	597
E813	Motor vehicle traffic accident involving collision with other vehicle	32
E814	Motor vehicle traffic accident involving collision with pedestrian	198
E815	Other motor vehicle traffic accident involving collision on the highway	175
E816	Motor vehicle traffic accident due to loss of control, without collision on the highway	193
E817	Noncollision motor vehicle traffic accident while boarding or alighting	1
E818	Other noncollision motor vehicle traffic accident	19
E819	Motor vehicle traffic accident of unspecified nature	136
E820	Nontraffic accident involving motor-driven snow vehicle	15
E821	Nontraffic accident involving other off-road motor vehicle	7
E822	Other motor vehicle nontraffic accident involving collision with moving object	15
E823	Other motor vehicle nontraffic accident involving collision with stationary object	4
E825	Other motor vehicle nontraffic accident of other and unspecified nature	5
E826	Pedal cycle accident	1
E828	Accident involving animal being ridden	1
E830	Accident to watercraft causing submersion	11
E831	Accident to watercraft causing other injury	1
E832	Other accidental submersion or drowning in water transport accident	12
E838	Other and unspecified water transport accident	4
E840	Accident to powered aircraft at takeoff or landing	1
E841	Accident to powered aircraft, other and unspecified	20

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause Of Death	Number
E844	Other specified air transport accidents	1
E848	Accidents involving other vehicles not elsewhere classifiable	2
E850	Accidental poisoning by analgesics, antipyretics, antirheumatics	6
E853	Accidental poisoning by tranquillizers	3
E854	Accidental poisoning by other psychotropic agents	3
E855	Accidental poisoning by other drugs acting on central and autonomic nervous systems	11
E858	Accidental poisoning by other drugs	39
E860	Accidental poisoning by alcohol, not elsewhere classified	5
E861	Accidental poisoning by cleaning and polishing agents, disinfectants, paints and varnishes	1
E862	Accidental poisoning by petroleum products, other solvents and their vapours, not elsewhere classified	3
E865	Accidental poisoning from foodstuffs and poisonous plants	1
E866	Accidental poisoning by other and unspecified solid and liquid substances	4
E868	Accidental poisoning by other utility gas and other carbon monoxide	29
E869	Accidental poisoning by other gases and vapors	1
E870	Accidental cut, puncture, perforation or hemorrhage during medical care	5
E876	Other and unspecified misadventures during medical care	3
E878	Surgical operation and other surgical procedures as the cause of abnormal reaction of patient, or of later complication, without mention of misadventure at the time of procedure	43
E879	Other procedures, without mention of misadventure at the time of procedure, as the cause of abnormal reaction of patient, or of misadventure at the time of procedure	19
E880	Fall on or from stairs or steps	50
E881	Fall on or from ladders or scaffolding	15
E882	Fall from or out of building or other structure	9
E883	Fall into hole or other opening in surface	1
E884	Other fall from one level to another	25
E885	Fall on same level from slipping, tripping or stumbling	16
E887	Fracture, cause unspecified	143
E888	Other and unspecified fall	206
E890	Conflagration in private dwelling	179
E891	Conflagration in other and unspecified building or structure	2
E892	Conflagration not in building or structure	1
E893	Accident caused by ignition of clothing	5
E894	Ignition of highly inflammable material	3
E895	Accident caused by controlled fire in private dwelling	1
E898	Accident caused by other specified fire and flames	1
E899	Accident caused by unspecified fire	7
E900	Excessive heat	1
E901	Excessive cold	30
E904	Hunger, thirst, exposure, neglect	5
E905	Venomous animals and plants as the cause of poisoning and toxic reactions	3
E906	Other injury caused by animals	4
E907	Lightening	1
E910	Accidental drowning and submersion	105
E911	Inhalation and ingestion of food causing obstruction of respiratory tract or suffocation	33
E912	Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation	56
E913	Accidental mechanical suffocation	34
E915	Foreign body accidentally entering other orifice	1
E916	Struck accidentally by falling object	21
E917	Striking against or struck accidentally by objects or persons	5
E918	Caught accidentally in or between objects	7
E919	Accidents caused by machinery	23

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
E920	Accidents caused by cutting and piercing instruments or objects	4
E922	Accident caused by firearm missile	34
E923	Accident caused by explosive material	4
E924	Accident caused by hot substance or object, caustic or corrosive material and steam	3
E925	Accident caused by electric current	26
E928	Other and unspecified environmental and accidental causes	75
E929	Late effects of accidental injury	21
E930	Antibiotics	3
E934	Agents primarily affecting blood constituents	2
E947	Other and unspecified drugs and medicaments	6
E950	Suicide and selfinflicted poisoning by solid or liquid substance	138
E951	Suicide and selfinflicted poisoning by gases in domestic use	2
E952	Suicide and selfinflicted poisoning by other gases and vapors	110
E953	Suicide and selfinflicted injury by hanging, strangulation and suffocation	167
E954	Suicide and selfinflicted injury by submersion (drowning)	10
E955	Suicide and selfinflicted injury by firearms and explosives	597
E956	Suicide and selfinflicted injury by cutting and piercing instrument	11
E957	Suicide and selfinflicted injuries by jumping from high place	12
E958	Suicide and selfinflicted injury by other and unspecified means	15
E959	Late effects of selfinflicted injury	1
E960	Fight, brawl, rape	1
E962	Assault by poisoning	6
E963	Assault by hanging and strangulation	30
E964	Assault by submersion (drowning)	1
E965	Assault by firearms and explosives	728
E966	Assault by cutting and piercing instrument	142
E967	Child battering and other maltreatment	19
E968	Assault by other and unspecified means	113
E969	Late effects of injury purposely inflicted by other persons	2
E970	Injury do to legal intervention by firearms	5
E980	Poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted	75
E981	Poisoning by gases in domestic use, undetermined whether accidentally or purposely inflicted	1
E982	Poisoning by other gases, undetermined whether accidentally or purposely inflicted	2
E983	Hanging, strangulation or suffocation, undetermined whether accidentally or purposely inflicted	2
E984	Submersion (drowning), undetermined whether accidentally or purposely inflicted	8
E985	Injury by firearms and explosives, undetermined whether accidentally or purposely inflicted	11
E986	Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted	1
E987	Falling from high place, undetermined whether accidentally or purposely inflicted	3
E988	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	5

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.17
Population Changes by County
Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Michigan	9,262,078	9,295,297	33,219	0.4	623,126	-589,907
Alcona	9,740	10,145	405	4.2	-262	667
Alger	9,225	8,972	-253	-2.7	101	-354
Allegan	81,555	90,509	8,954	11.0	7,426	1,528
Alpena	32,315	30,605	-1,710	-5.3	1,322	-3,032
Antrim	16,194	18,185	1,991	12.3	472	1,519
Arenac	14,706	14,931	225	1.5	510	-285
Baraga	8,484	7,954	-530	-6.2	71	-601
Barry	45,781	50,057	4,276	9.3	3,188	1,088
Bay	119,881	111,723	-8,158	-6.8	7,139	-15,297
Benzie	11,205	12,200	995	8.9	368	627
Berrien	171,276	161,378	-9,898	-5.8	10,362	-20,260
Branch	40,188	41,502	1,314	3.3	2,540	-1,226
Calhoun	141,557	135,982	-5,575	-3.9	7,550	-13,125
Cass	49,499	49,477	-22	-0.0	2,269	-2,291
Charlevoix	19,907	21,468	1,561	7.8	1,272	289
Cheboygan	20,649	21,398	749	3.6	817	-68
Chippewa	29,029	34,604	5,575	19.2	1,061	4,514
Clare	23,822	24,952	1,130	4.7	717	413
Clinton	55,893	57,883	1,990	3.6	4,969	-2,979
Crawford	9,465	12,260	2,795	29.5	681	2,114
Delta	38,947	37,780	-1,167	-3.0	1,711	-2,878
Dickinson	25,341	26,831	1,490	5.9	592	898
Eaton	88,337	92,879	4,542	5.1	6,420	-1,878
Emmet	22,992	25,040	2,048	8.9	1,297	751
Genesee	450,449	430,459	-19,990	-4.4	35,448	-55,438
Gladwin	19,957	21,896	1,939	9.7	746	1,193
Gogebic	19,686	18,052	-1,634	-8.3	-664	-970
Grand Traverse	54,899	64,273	9,374	17.1	4,701	4,673
Gratiot	40,448	38,982	-1,466	-3.6	1,751	-3,217
Hillsdale	42,071	43,431	1,360	3.2	2,542	-1,182
Houghton	37,872	35,446	-2,426	-6.4	546	-2,972
Huron	36,459	34,951	-1,508	-4.1	1,416	-2,924
Ingham	275,520	281,912	6,392	2.3	27,424	-21,032
Ionia	51,815	57,024	5,209	10.1	4,682	527
Iosco	28,349	30,209	1,860	6.6	2,783	-923
Iron	13,635	13,175	-460	-3.4	-520	60
Isabella	54,110	54,624	514	0.9	3,866	-3,352
Jackson	151,495	149,756	-1,739	-1.1	8,650	-10,389
Kalamazoo	212,378	223,411	11,033	5.2	17,186	-6,153
Kalkaska	10,952	13,497	2,545	23.2	1,046	1,499

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.17 (continued)

Population Changes by County

Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Kent	444,506	500,631	56,125	12.6	52,147	3,978
Keweenaw	1,963	1,701	-262	-13.3	-168	-94
Lake	7,711	8,583	872	11.3	-119	991
Lapeer	70,038	74,768	4,730	6.8	5,764	-1,034
Leelanau	14,007	16,527	2,520	18.0	813	1,707
Lenawee	89,948	91,476	1,528	1.7	5,769	-4,241
Livingston	100,289	115,645	15,356	15.3	8,348	7,008
Luce	6,659	5,763	-896	-13.5	106	-1,002
Mackinac	10,178	10,674	496	4.9	212	284
Macomb	694,600	717,400	22,800	3.3	42,528	-19,728
Manistee	23,019	21,265	-1,754	-7.6	64	-1,818
Marquette	74,101	70,887	-3,214	-4.3	6,410	-9,624
Mason	26,365	25,537	-828	-3.1	821	-1,649
Mecosta	36,961	37,308	347	0.9	1,945	-1,598
Menominee	26,201	24,920	-1,281	-4.9	643	-1,924
Midland	73,578	75,651	2,073	2.8	6,559	-4,486
Missaukee	10,009	12,147	2,138	21.4	830	1,308
Monroe	134,659	133,600	-1,059	-0.8	9,310	-10,369
Montcalm	47,555	53,059	5,504	11.6	3,532	1,972
Montmorency	7,492	8,936	1,444	19.3	-178	1,622
Muskegon	157,589	158,983	1,394	0.9	11,806	-10,412
Newaygo	34,917	38,202	3,285	9.4	2,660	625
Oakland	1,011,793	1,083,592	71,799	7.1	70,700	1,099
Oceana	22,002	22,454	452	2.1	1,630	-1,178
Ogemaw	16,436	18,681	2,245	13.7	497	1,748
Ontonagon	9,861	8,854	-1,007	-10.2	-53	-954
Osceola	18,928	20,146	1,218	6.4	1,182	36
Oscoda	6,858	7,842	984	14.3	132	852
Otsego	14,993	17,957	2,964	19.8	1,094	1,870
Ottawa	157,174	187,768	30,594	19.5	18,445	12,149
Presque Isle	14,267	13,743	-524	-3.7	237	-761
Roscommon	16,374	19,776	3,402	20.8	-282	3,684
Saginaw	228,059	211,946	-16,113	-7.1	16,935	-33,048
St. Clair	138,802	145,607	6,805	4.9	8,131	-1,326
St. Joseph	56,083	58,913	2,830	5.0	4,053	-1,223
Sanilac	40,789	39,928	-861	-2.1	1,728	-2,589
Schoolcraft	8,575	8,302	-273	-3.2	75	-348
Shiawassee	71,140	69,770	-1,370	-1.9	5,135	-6,505
Tuscola	56,961	55,498	-1,463	-2.6	3,556	-5,019
Van Buren	66,814	70,060	3,246	4.9	4,456	-1,210
Washtenaw	264,748	282,937	18,189	6.9	24,432	-6,243
Wayne	2,337,891	2,111,687	-226,204	-9.7	125,631	-351,835
Wexford	25,102	26,360	1,258	5.0	1,513	-255

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.18

Population by Age, Race and Sex

Michigan Residents, 1990

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	151,264	77,293	73,971	117,554	60,148	57,406	30,509	15,485	15,024	3,201	1,660	1,541
1 - 4	562,314	287,431	274,883	451,685	231,530	220,155	97,872	49,425	48,447	12,757	6,476	6,281
5 - 9	690,138	353,390	336,748	563,744	289,687	274,057	110,882	55,907	54,975	15,512	7,796	7,716
10 - 14	665,572	340,578	324,994	538,400	276,544	261,856	112,536	56,705	55,831	14,636	7,329	7,307
15 - 19	700,201	355,970	344,231	559,748	285,917	273,831	124,685	61,948	62,737	15,768	8,105	7,663
20 - 24	706,575	350,511	356,064	582,768	291,766	291,002	108,740	51,000	57,740	15,067	7,745	7,322
25 - 29	764,264	376,664	387,600	643,267	321,201	322,066	105,333	47,685	57,648	15,664	7,778	7,886
30 - 34	810,420	396,830	413,590	684,362	339,708	344,654	110,752	49,548	61,204	15,306	7,574	7,732
35 - 39	744,802	365,839	378,963	629,710	314,084	315,626	101,410	45,263	56,147	13,682	6,492	7,190
40 - 44	657,391	323,122	334,269	559,969	278,811	281,158	85,094	38,684	46,410	12,328	5,627	6,701
45 - 49	520,093	255,767	264,326	449,915	223,189	226,726	61,234	28,210	33,024	8,944	4,368	4,576
50 - 54	424,090	206,548	217,542	370,209	182,001	188,208	47,415	21,225	26,190	6,466	3,322	3,144
55 - 59	391,190	187,237	203,953	341,312	164,924	176,388	45,439	20,173	25,266	4,439	2,140	2,299
60 - 64	402,882	190,640	212,242	354,333	169,056	185,277	44,987	20,025	24,962	3,562	1,559	2,003
65 - 69	367,805	165,700	202,105	324,623	146,694	177,929	40,537	17,845	22,692	2,645	1,161	1,484
70 - 74	286,418	121,055	165,363	255,812	108,354	147,458	28,886	12,012	16,874	1,720	689	1,031
75 - 79	211,919	82,719	129,200	189,989	74,292	115,697	20,784	7,968	12,816	1,146	459	687
80 - 84	132,789	45,870	86,919	120,528	41,357	79,171	11,628	4,223	7,405	633	290	343
85 +	105,170	29,566	75,604	95,138	26,289	68,849	9,643	3,125	6,518	389	152	237
Total	9,295,297	4,512,730	4,782,567	7,833,066	3,825,552	4,007,514	1,298,366	606,456	691,910	163,865	80,722	83,143

Source: The United States Bureau of the Census, 1990 Census of Population.

Table 4.19

Abridged Life Table

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.00965	100,000	965	99,137	7,513,002	75.1
1-5	0.00182	99,035	180	395,718	7,413,864	74.9
5-10	0.00121	98,855	120	493,944	7,018,146	71.0
10-15	0.00142	98,735	140	493,379	6,524,202	66.1
15-20	0.00383	98,595	377	492,112	6,030,823	61.2
20-25	0.00538	98,218	528	489,797	5,538,711	56.4
25-30	0.00527	97,690	514	487,185	5,048,914	51.7
30-35	0.00650	97,176	631	484,380	4,561,729	46.9
35-40	0.00935	96,544	902	480,596	4,077,348	42.2
40-45	0.01310	95,642	1,252	475,269	3,596,753	37.6
45-50	0.01914	94,390	1,806	467,750	3,121,484	33.1
50-55	0.02989	92,584	2,767	456,421	2,653,734	28.7
55-60	0.04252	89,817	3,819	440,149	2,197,312	24.5
60-65	0.06636	85,998	5,706	416,697	1,757,164	20.4
65-70	0.10582	80,291	8,496	381,452	1,340,466	16.7
70-75	0.16216	71,795	11,642	330,985	959,014	13.4
75-80	0.23022	60,153	13,848	266,975	628,029	10.4
80-85	0.33761	46,304	15,633	192,360	361,054	7.8
85+	1.00000	30,672	30,672	168,694	168,694	5.5

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.20
Abridged Life Table for Males
Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.01087	100,000	1,087	99,036	7,190,699	71.9
1-5	0.00227	98,913	224	395,123	7,091,663	71.7
5-10	0.00145	98,689	142	493,054	6,696,540	67.9
10-15	0.00191	98,547	188	492,346	6,203,486	63.0
15-20	0.00544	98,359	535	490,587	5,711,140	58.1
20-25	0.00827	97,824	809	487,142	5,220,553	53.4
25-30	0.00768	97,015	744	483,227	4,733,411	48.8
30-35	0.00894	96,271	860	479,311	4,250,184	44.2
35-40	0.01313	95,411	1,252	474,084	3,770,873	39.5
40-45	0.01720	94,159	1,619	466,965	3,296,789	35.0
45-50	0.02472	92,541	2,287	457,329	2,829,823	30.6
50-55	0.03620	90,254	3,267	443,588	2,372,494	26.3
55-60	0.05310	86,987	4,619	424,132	1,928,907	22.2
60-65	0.08303	82,368	6,839	395,903	1,504,775	18.3
65-70	0.13484	75,529	10,184	353,625	1,108,871	14.7
70-75	0.21039	65,345	13,747	293,399	755,246	11.6
75-80	0.29436	51,598	15,188	220,364	461,847	9.0
80-85	0.42318	36,410	15,408	142,773	241,483	6.6
85+	1.00000	21,002	21,002	98,710	98,710	4.7

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.21
Abridged Life Table for Females
Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.00836	100,000	836	99,246	7,823,529	78.2
1-5	0.00136	99,164	134	396,351	7,724,283	77.9
5-10	0.00097	99,030	96	494,889	7,327,932	74.0
10-15	0.00091	98,935	90	494,474	6,833,042	69.1
15-20	0.00217	98,845	214	493,724	6,338,568	64.1
20-25	0.00252	98,631	248	492,553	5,844,844	59.3
25-30	0.00293	98,384	288	491,232	5,352,291	54.4
30-35	0.00416	98,096	407	489,518	4,861,059	49.6
35-40	0.00569	97,689	555	487,155	4,371,541	44.8
40-45	0.00912	97,133	885	483,612	3,884,386	40.0
45-50	0.01371	96,248	1,319	478,230	3,400,773	35.3
50-55	0.02387	94,929	2,266	469,337	2,922,544	30.9
55-60	0.03272	92,663	3,031	456,222	2,453,207	26.5
60-65	0.05116	89,632	4,585	437,509	1,996,984	22.3
65-70	0.08139	85,047	6,922	409,014	1,559,475	18.3
70-75	0.12520	78,125	9,781	367,388	1,150,461	14.7
75-80	0.18647	68,345	12,744	311,164	783,073	11.5
80-85	0.28815	55,601	16,021	238,386	471,908	8.5
85+	1.00000	39,580	39,580	233,522	233,522	5.9

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.22

Abridged Life Table for Whites

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.00664	100,000	664	99,410	7,632,414	76.3
1-5	0.00140	99,336	139	397,028	7,533,003	75.8
5-10	0.00103	99,197	102	495,703	7,135,976	71.9
10-15	0.00130	99,095	129	495,195	6,640,273	67.0
15-20	0.00316	98,966	312	494,104	6,145,077	62.1
20-25	0.00400	98,653	394	492,298	5,650,974	57.3
25-30	0.00390	98,260	383	490,371	5,158,676	52.5
30-35	0.00547	97,877	535	488,116	4,668,305	47.7
35-40	0.00729	97,342	709	485,034	4,180,189	42.9
40-45	0.01028	96,633	993	480,853	3,695,155	38.2
45-50	0.01584	95,641	1,514	474,734	3,214,301	33.6
50-55	0.02668	94,126	2,511	464,768	2,739,567	29.1
55-60	0.03815	91,616	3,495	449,942	2,274,799	24.8
60-65	0.06127	88,121	5,399	428,114	1,824,857	20.7
65-70	0.10067	82,722	8,327	394,099	1,396,744	16.9
70-75	0.15689	74,395	11,671	344,032	1,002,645	13.5
75-80	0.22740	62,723	14,263	278,889	658,613	10.5
80-85	0.33289	48,460	16,132	201,916	379,724	7.8
85+	1.00000	32,329	32,329	177,808	177,808	5.5

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.23

Abridged Life Table for White Males

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.00748	100,000	748	99,342	7,328,581	73.3
1-5	0.00185	99,252	183	396,577	7,229,239	72.8
5-10	0.00121	99,069	120	495,014	6,832,662	69.0
10-15	0.00179	98,949	177	494,366	6,337,649	64.1
15-20	0.00430	98,772	424	492,888	5,843,283	59.2
20-25	0.00612	98,348	602	490,260	5,350,395	54.4
25-30	0.00555	97,746	542	487,402	4,860,135	49.7
30-35	0.00744	97,205	723	484,308	4,372,733	45.0
35-40	0.01021	96,482	984	480,069	3,888,425	40.3
40-45	0.01365	95,497	1,303	474,420	3,408,356	35.7
45-50	0.02022	94,194	1,904	466,550	2,933,937	31.2
50-55	0.03191	92,289	2,945	454,579	2,467,386	26.7
55-60	0.04785	89,345	4,275	436,801	2,012,807	22.5
60-65	0.07776	85,070	6,614	410,032	1,576,006	18.5
65-70	0.12907	78,456	10,126	368,492	1,165,974	14.9
70-75	0.20427	68,329	13,957	307,938	797,482	11.7
75-80	0.29072	54,372	15,807	232,810	489,544	9.0
80-85	0.41993	38,565	16,194	151,591	256,735	6.7
85+	1.00000	22,371	22,371	105,143	105,143	4.7

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.24

Abridged Life Table for White Females

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.00577	100,000	577	99,483	7,922,464	79.2
1-5	0.00093	99,423	92	397,501	7,822,981	78.7
5-10	0.00084	99,331	83	496,427	7,425,481	74.8
10-15	0.00079	99,248	78	496,069	6,929,054	69.8
15-20	0.00198	99,170	195	495,385	6,432,985	64.9
20-25	0.00186	98,975	184	494,421	5,937,600	60.0
25-30	0.00225	98,791	222	493,436	5,443,179	55.1
30-35	0.00352	98,569	347	492,022	4,949,743	50.2
35-40	0.00437	98,222	429	490,109	4,457,721	45.4
40-45	0.00692	97,794	676	487,421	3,967,613	40.6
45-50	0.01150	97,118	1,117	483,087	3,480,191	35.8
50-55	0.02160	96,001	2,073	475,158	2,997,104	31.2
55-60	0.02900	93,928	2,724	463,273	2,521,947	26.9
60-65	0.04600	91,204	4,195	446,357	2,058,674	22.6
65-70	0.07664	87,010	6,668	419,521	1,612,317	18.5
70-75	0.12047	80,342	9,678	378,833	1,192,796	14.9
75-80	0.18413	70,663	13,011	322,173	813,963	11.5
80-85	0.28307	57,653	16,319	247,923	491,790	8.5
85+	1.00000	41,333	41,333	243,867	243,867	5.9

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.25

Abridged Life Table for Blacks

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.02150	100,000	2,150	98,056	6,841,716	68.4
1-5	0.00372	97,850	363	390,520	6,743,660	68.9
5-10	0.00217	97,487	211	486,853	6,353,140	65.2
10-15	0.00209	97,276	203	485,970	5,866,287	60.3
15-20	0.00708	97,073	687	483,859	5,380,317	55.4
20-25	0.01271	96,386	1,225	478,993	4,896,458	50.8
25-30	0.01354	95,161	1,288	472,588	4,417,465	46.4
30-35	0.01315	93,873	1,234	466,447	3,944,877	42.0
35-40	0.02250	92,639	2,084	458,328	3,478,430	37.6
40-45	0.03172	90,556	2,872	445,942	3,020,101	33.4
45-50	0.04264	87,683	3,738	429,429	2,574,159	29.4
50-55	0.05464	83,945	4,586	408,704	2,144,730	25.6
55-60	0.07389	79,359	5,863	382,763	1,736,026	21.9
60-65	0.10322	73,496	7,586	349,279	1,353,263	18.4
65-70	0.14470	65,910	9,537	306,545	1,003,984	15.2
70-75	0.20591	56,373	11,608	253,227	697,439	12.4
75-80	0.25385	44,765	11,363	195,655	444,212	9.9
80-85	0.38146	33,402	12,742	134,924	248,557	7.4
85+	1.00000	20,661	20,661	113,633	113,633	5.5

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.26

Abridged Life Table for Black Males

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.02435	100,000	2,435	97,817	6,395,443	64.0
1-5	0.00420	97,565	410	389,284	6,297,627	64.6
5-10	0.00259	97,156	252	485,087	5,908,342	60.8
10-15	0.00256	96,904	248	484,073	5,423,255	56.0
15-20	0.01109	96,657	1,071	480,963	4,939,182	51.1
20-25	0.02058	95,585	1,967	473,210	4,458,219	46.6
25-30	0.02178	93,618	2,039	462,958	3,985,009	42.6
30-35	0.01960	91,579	1,794	453,614	3,522,052	38.5
35-40	0.03360	89,785	3,016	441,787	3,068,438	34.2
40-45	0.04292	86,769	3,724	424,926	2,626,651	30.3
45-50	0.05890	83,045	4,891	403,401	2,201,725	26.5
50-55	0.07228	78,155	5,649	377,031	1,798,324	23.0
55-60	0.09257	72,506	6,712	346,275	1,421,294	19.6
60-65	0.12419	65,794	8,170	309,286	1,075,019	16.4
65-70	0.17825	57,624	10,271	263,341	765,732	13.3
70-75	0.26372	47,353	12,487	205,760	502,391	10.6
75-80	0.32412	34,865	11,300	145,699	296,631	8.5
80-85	0.45310	23,565	10,677	90,359	150,932	6.4
85+	1.00000	12,888	12,888	60,573	60,573	4.7

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.27

Abridged Life Table for Black Females

Michigan Residents, 1992

Age	nqx(1)[1]	lx(2)[1]	ndx(3)[1]	nLx(4)[1]	Tx(5)[1]	ex(6)[1]
0-1	0.01844	100,000	1,844	98,316	7,272,302	72.7
1-5	0.00322	98,156	315	391,846	7,173,987	73.1
5-10	0.00173	97,840	169	488,738	6,782,141	69.3
10-15	0.00162	97,671	157	487,992	6,293,403	64.4
15-20	0.00311	97,514	303	486,897	5,805,411	59.5
20-25	0.00571	97,211	554	484,743	5,318,515	54.7
25-30	0.00666	96,657	644	481,720	4,833,772	50.0
30-35	0.00790	96,014	758	478,306	4,352,052	45.3
35-40	0.01346	95,255	1,282	473,351	3,873,747	40.7
40-45	0.02229	93,974	2,094	464,913	3,400,395	36.2
45-50	0.02854	91,880	2,621	453,154	2,935,482	32.0
50-55	0.04009	89,258	3,578	437,847	2,482,328	27.8
55-60	0.05870	85,680	5,029	416,528	2,044,480	23.9
60-65	0.08606	80,651	6,941	386,659	1,627,952	20.2
65-70	0.11746	73,710	8,658	347,660	1,241,294	16.8
70-75	0.16233	65,052	10,559	299,406	893,634	13.7
75-80	0.20678	54,493	11,268	245,129	594,227	10.9
80-85	0.33690	43,225	14,562	179,988	349,099	8.1
85+	1.00000	28,663	28,663	169,111	169,111	5.9

[1] Definitions of life table values are contained in the Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.28

Age-Adjusted Death Rates[1] by Race and Sex

Michigan[2] and United States Residents, 1970 - 1992

Place	Year	All Races			White			Black		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Mich.	1970	717.5	925.9	537.3	685.5	889.4	510.8	1,017.1	1,274.1	787.8
	1971	707.9	922.9	524.0	672.5	881.2	495.7	1,034.2	1,315.0	785.3
	1972	711.1	928.2	526.4	677.2	888.0	499.4	1,017.8	1,302.6	767.1
	1973	694.3	906.3	513.7	658.4	862.6	486.0	1,014.1	1,309.1	757.9
	1974	660.7	865.1	488.0	628.4	824.6	464.2	948.4	1,235.6	698.6
	1975	640.2	840.3	472.4	610.1	800.5	452.0	904.1	1,198.8	649.8
	1976	636.1	838.5	469.1	607.2	801.4	448.5	889.6	1,170.5	650.8
	1977	614.4	814.8	449.4	587.3	781.6	428.8	851.7	1,116.5	628.0
	1978	606.3	797.8	449.8	578.7	765.7	426.8	842.7	1,085.5	640.3
	1979	585.4	775.6	431.4	557.9	742.5	409.7	812.6	1,063.9	604.2
	1980	588.0	773.9	438.7	557.1	735.5	414.9	829.5	1,091.4	615.2
	1981	567.4	752.1	424.5	542.2	718.5	403.0	823.9	1,075.3	619.6
	1982	556.9	739.5	416.8	531.9	705.4	395.6	807.8	1,055.2	607.2
	1983	557.1	735.0	421.2	531.1	698.7	399.3	816.6	1,065.3	615.7
	1984	564.5	736.5	431.3	533.7	694.8	407.2	813.3	1,072.4	605.0
	1985	570.0	747.3	427.6	534.9	701.2	402.8	840.4	1,121.8	612.3
	1986	566.9	734.8	431.0	529.2	685.4	404.0	857.1	1,136.4	632.4
	1987	556.4	713.6	428.4	516.1	658.8	400.9	866.4	1,159.1	632.0
	1988	545.0	698.0	419.1	504.9	647.2	388.6	858.2	1,120.2	647.9
	1989	531.5	675.4	412.0	494.3	634.9	377.3	883.6	1,163.5	659.9
	1990	527.9	681.2	405.4	488.0	628.2	377.1	797.9	1,069.2	585.2
	1991	533.6	686.6	412.0	492.4	631.9	383.3	814.8	1,081.1	603.2
	1992	525.3	677.3	404.4	483.1	623.7	372.4	806.8	1,060.0	608.6
U.S.	1970	714.3	931.6	532.5	679.6	893.4	501.7	1,044.0	1,318.6	814.4
	1971	697.6	913.3	519.1	663.7	876.0	489.1	1,007.8	1,276.1	784.6
	1972	698.0	918.0	516.6	664.0	879.3	487.6	1,009.5	1,296.6	772.8
	1973	687.3	905.9	508.1	654.0	868.5	479.3	993.1	1,272.1	640.9
	1974	659.5	870.9	487.0	629.0	836.1	461.0	940.4	1,215.5	717.1
	1975	630.4	837.2	462.5	602.2	804.3	439.0	890.8	1,163.0	670.6
	1976	618.5	820.9	455.0	591.3	789.3	432.5	870.5	1,138.3	654.5
	1977	602.1	801.3	441.8	575.7	770.6	419.6	849.3	1,112.1	639.6
	1978	595.0	791.4	437.4	569.5	761.1	416.4	831.8	1,093.9	622.7
	1979	577.0	768.6	423.1	551.9	738.4	402.5	840.1	1,090.4	636.1
	1980	585.8	777.2	432.6	559.4	745.3	411.1	842.5	1,112.8	631.1
	1981	568.6	753.8	420.8	544.8	724.8	401.5	807.0	1,068.8	602.7
	1982	554.7	734.2	411.9	532.3	706.8	393.6	782.1	1,035.4	585.9
	1983	552.5	729.4	412.5	529.4	701.6	393.3	787.4	1,037.5	595.3
	1984	548.1	721.6	410.5	525.2	693.6	391.7	783.3	1,035.9	590.1
	1985	548.9	723.0	410.3	524.9	693.3	391.0	793.6	1,053.4	594.8
	1986	544.8	716.2	407.6	520.1	684.9	388.1	796.8	1,061.9	594.1
	1987	539.2	706.8	404.6	513.7	674.2	384.8	796.4	1,063.6	592.4
	1988	539.9	706.1	406.1	512.8	671.3	385.3	809.7	1,083.0	601.0
	1989	528.0	689.3	397.3	499.6	652.2	376.0	805.9	1,082.8	594.3
	1990	520.2	680.2	390.6	492.8	644.3	369.9	789.2	1,061.3	581.6
	1991	513.7	669.9	386.5	486.8	634.4	366.3	780.7	1,048.8	575.1
	1992[3]	—	—	—	—	—	—	—	—	—

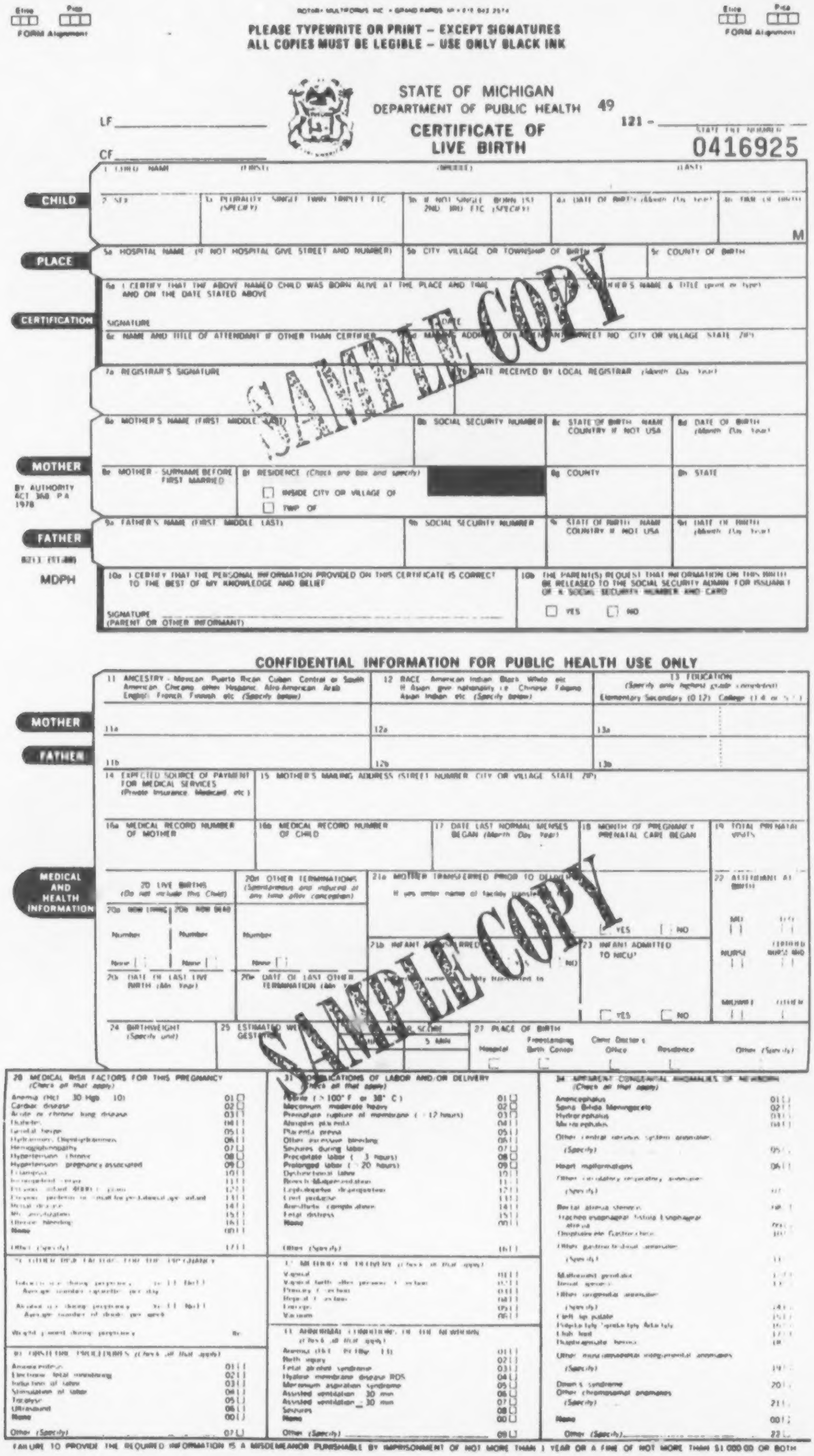
[1] Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

[2] Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

[3] Provisional data.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 4.2



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ALL COPIES MUST BE LEGIBLE – USE ONLY BLACK INK

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STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH 49
CERTIFICATE OF
LIVE BIRTH

LF ____________

CF ____________

121 – ____________ STATE FILE NUMBER

0416925

SAMPLE COPY

CHILD

1 CHILD NAME (FIRST) (MIDDLE) (LAST)

2 SEX

3a PLURALITY SINGLE TWIN TRIPLET ETC (SPECIFY)

3b IF NOT SINGLE BORN 1ST 2ND 3RD ETC (SPECIFY)

4a DATE OF BIRTH (Month Day Year)

4b TIME OF BIRTH M

PLACE

5a HOSPITAL NAME (IF NOT HOSPITAL GIVE STREET AND NUMBER)

5b CITY VILLAGE OR TOWNSHIP OF BIRTH

5c COUNTY OF BIRTH

CERTIFICATION

6a I CERTIFY THAT THE ABOVE NAMED CHILD WAS BORN ALIVE AT THE PLACE AND TIME AND ON THE DATE STATED ABOVE

SIGNATURE DATE

CERTIFIER'S NAME & TITLE (print or type)

6c NAME AND TITLE OF ATTENDANT IF OTHER THAN CERTIFIER

6d MAILING ADDRESS OF ATTENDANT STREET NO CITY OR VILLAGE STATE ZIP

7a REGISTRAR'S SIGNATURE

7b DATE RECEIVED BY LOCAL REGISTRAR (Month Day Year)

MOTHER

BY AUTHORITY ACT 368 P.A. 1978

8a MOTHER'S NAME (FIRST MIDDLE LAST)

8b SOCIAL SECURITY NUMBER

8c STATE OF BIRTH NAME COUNTRY IF NOT USA

8d DATE OF BIRTH (Month Day Year)

8e MOTHER – SURNAME BEFORE FIRST MARRIED

8f RESIDENCE (Check one box and specify)
☐ INSIDE CITY OR VILLAGE OF
☐ TWP OF

[redacted]

8g COUNTY

8h STATE

FATHER

8211 (11-88)

MDPH

9a FATHER'S NAME (FIRST MIDDLE LAST)

9b SOCIAL SECURITY NUMBER

9c STATE OF BIRTH NAME COUNTRY IF NOT USA

9d DATE OF BIRTH (Month Day Year)

10a I CERTIFY THAT THE PERSONAL INFORMATION PROVIDED ON THIS CERTIFICATE IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNATURE (PARENT OR OTHER INFORMANT) ____________

10b THE PARENT(S) REQUEST THAT INFORMATION ON THIS BIRTH BE RELEASED TO THE SOCIAL SECURITY ADMIN FOR ISSUANCE OF A SOCIAL SECURITY NUMBER AND CARD

☐ YES ☐ NO

CONFIDENTIAL INFORMATION FOR PUBLIC HEALTH USE ONLY

11 ANCESTRY – Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro-American, Arab, English, French, Finnish, etc (Specify below)

12 RACE – American Indian, Black, White, etc. If Asian give nationality i.e. Chinese, Filipino, Asian Indian, etc (Specify below)

13 EDUCATION (Specify only highest grade completed) Elementary Secondary (0-12) College (1-4 or 5+)

MOTHER 11a 12a 13a

FATHER 11b 12b 13b

MEDICAL AND HEALTH INFORMATION

14 EXPECTED SOURCE OF PAYMENT FOR MEDICAL SERVICES (Private Insurance, Medicaid, etc)

15 MOTHER'S MAILING ADDRESS (STREET NUMBER CITY OR VILLAGE STATE ZIP)

16a MEDICAL RECORD NUMBER OF MOTHER

16b MEDICAL RECORD NUMBER OF CHILD

17 DATE LAST NORMAL MENSES BEGAN (Month Day Year)

18 MONTH OF PREGNANCY PRENATAL CARE BEGAN

19 TOTAL PRENATAL VISITS

20 LIVE BIRTHS (Do not include this Child)

20a NOW LIVING Number None ☐

20b NOW DEAD Number None ☐

20d OTHER TERMINATIONS (Spontaneous and induced at any time after conception) Number None ☐

20c DATE OF LAST LIVE BIRTH (Mo Year)

20e DATE OF LAST OTHER TERMINATION (Mo Year)

21a MOTHER TRANSFERRED PRIOR TO DELIVERY? If yes enter name of facility transferred from ☐ YES ☐ NO

21b INFANT TRANSFERRED? ☐ YES ☐ NO If yes enter name of facility transferred to

22 ATTENDANT AT BIRTH
MD ☐ DO ☐
NURSE ☐ CERTIFIED NURSE MID ☐
MIDWIFE ☐ OTHER ☐

23 INFANT ADMITTED TO NICU? ☐ YES ☐ NO

24 BIRTHWEIGHT (Specify unit)

25 ESTIMATED WEEKS GESTATION

26 APGAR SCORE 1 MIN 5 MIN

27 PLACE OF BIRTH Hospital ☐ Freestanding Birth Center ☐ Clinic Doctor's Office ☐ Residence ☐ Other (Specify)

SAMPLE COPY

28 MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)
Anemia (Hct <30 Hgb <10) 01 ☐
Cardiac disease 02 ☐
Acute or chronic lung disease 03 ☐
Diabetes 04 ☐
Genital herpes 05 ☐
Hydramnios/Oligohydramnios 06 ☐
Hemoglobinopathy 07 ☐
Hypertension, chronic 08 ☐
Hypertension, pregnancy associated 09 ☐
Eclampsia 10 ☐
Incompetent cervix 11 ☐
Previous infant 4000+ grams 12 ☐
Previous preterm or small-for-gestational-age infant 13 ☐
Renal disease 14 ☐
Rh sensitization 15 ☐
Uterine bleeding 16 ☐
None 00 ☐
Other (Specify) 17 ☐

29 OTHER RISK FACTORS FOR THIS PREGNANCY
Tobacco use during pregnancy Yes ☐ No ☐
Average number cigarettes per day
Alcohol use during pregnancy Yes ☐ No ☐
Average number of drinks per week
Weight gained during pregnancy lbs

30 OBSTETRIC PROCEDURES (Check all that apply)
Amniocentesis 01 ☐
Electronic fetal monitoring 02 ☐
Induction of labor 03 ☐
Stimulation of labor 04 ☐
Tocolysis 05 ☐
Ultrasound 06 ☐
None 00 ☐
Other (Specify) 07 ☐

31 COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)
Febrile (>100° F or 38° C) 01 ☐
Meconium, moderate heavy 02 ☐
Premature rupture of membrane (>12 hours) 03 ☐
Abruptio placenta 04 ☐
Placenta previa 05 ☐
Other excessive bleeding 06 ☐
Seizures during labor 07 ☐
Precipitate labor (<3 hours) 08 ☐
Prolonged labor (>20 hours) 09 ☐
Dysfunctional labor 10 ☐
Breech/Malpresentation 11 ☐
Cephalopelvic disproportion 12 ☐
Cord prolapse 13 ☐
Anesthetic complications 14 ☐
Fetal distress 15 ☐
None 00 ☐
Other (Specify) 16 ☐

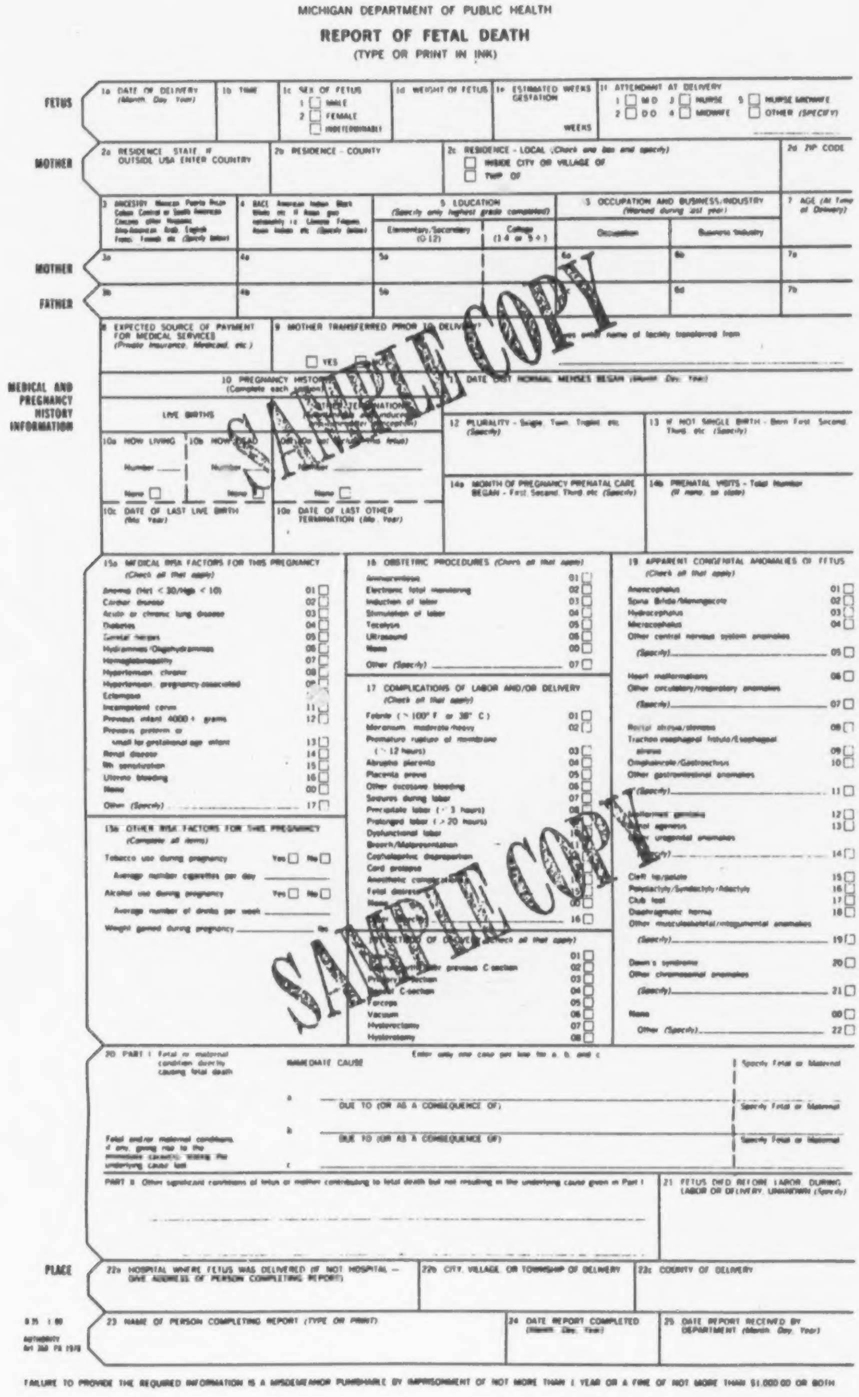
32 METHOD OF DELIVERY (Check all that apply)
Vaginal 01 ☐
Vaginal birth after previous C-section 02 ☐
Primary C-section 03 ☐
Repeat C-section 04 ☐
Forceps 05 ☐
Vacuum 06 ☐

33 ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)
Anemia (Hct <39 Hgb <13) 01 ☐
Birth injury 02 ☐
Fetal alcohol syndrome 03 ☐
Hyaline membrane disease RDS 04 ☐
Meconium aspiration syndrome 05 ☐
Assisted ventilation <30 min 06 ☐
Assisted ventilation ≥30 min 07 ☐
Seizures 08 ☐
None 00 ☐
Other (Specify) 09 ☐

34 APPARENT CONGENITAL ANOMALIES OF NEWBORN (Check all that apply)
Anencephalus 01 ☐
Spina Bifida Meningocele 02 ☐
Hydrocephalus 03 ☐
Microcephalus 04 ☐
Other central nervous system anomalies (Specify) 05 ☐
Heart malformations 06 ☐
Other circulatory respiratory anomalies (Specify) 07 ☐
Rectal atresia stenosis 08 ☐
Tracheo esophageal fistula Esophageal atresia 09 ☐
Omphalocele Gastroschisis 10 ☐
Other gastrointestinal anomalies (Specify) 11 ☐
Malformed genitalia 12 ☐
Renal agenesis 13 ☐
Other urogenital anomalies (Specify) 14 ☐
Cleft lip palate 15 ☐
Polydactyly Syndactyly Adactyly 16 ☐
Club foot 17 ☐
Diaphragmatic hernia 18 ☐
Other musculoskeletal integumental anomalies (Specify) 19 ☐
Down's syndrome 20 ☐
Other chromosomal anomalies (Specify) 21 ☐
None 00 ☐
Other (Specify) 22 ☐

FAILURE TO PROVIDE THE REQUIRED INFORMATION IS A MISDEMEANOR PUNISHABLE BY IMPRISONMENT OF NOT MORE THAN 1 YEAR OR A FINE OF NOT MORE THAN $1,000.00 OR BOTH

Figure 4.3



MICHIGAN DEPARTMENT OF PUBLIC HEALTH

REPORT OF FETAL DEATH

(TYPE OR PRINT IN INK)

FETUS

1a DATE OF DELIVERY *(Month, Day, Year)*

1b TIME

1c SEX OF FETUS
1 ☐ MALE
2 ☐ FEMALE
☐ INDETERMINABLE

1d WEIGHT OF FETUS

1e ESTIMATED WEEKS GESTATION ___ WEEKS

1f ATTENDANT AT DELIVERY
1 ☐ M.D. 3 ☐ NURSE 5 ☐ NURSE MIDWIFE
2 ☐ D.O. 4 ☐ MIDWIFE ☐ OTHER *(SPECIFY)*

MOTHER

2a RESIDENCE - STATE, IF OUTSIDE USA ENTER COUNTRY

2b RESIDENCE - COUNTY

2c RESIDENCE - LOCAL *(Check one box and specify)*
☐ INSIDE CITY OR VILLAGE OF
☐ TWP OF

2d ZIP CODE

3 ANCESTRY Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro-American, Arab, English, French, Finnish, etc. *(Specify below)*	4 RACE American Indian, Black, White, etc. If Asian give nationality i.e. Chinese, Filipino, Asian Indian, etc. *(Specify below)*	5 EDUCATION *(Specify only highest grade completed)* Elementary/Secondary (0-12)	College (1-4 or 5+)	6 OCCUPATION AND BUSINESS/INDUSTRY *(Worked during last year)* Occupation	Business/Industry	7 AGE *(At Time of Delivery)*
MOTHER 3a	4a	5a		6a	6b	7a
FATHER 3b	4b	5b		6c	6d	7b

MEDICAL AND PREGNANCY HISTORY INFORMATION

8 EXPECTED SOURCE OF PAYMENT FOR MEDICAL SERVICES *(Private Insurance, Medicaid, etc.)*

9 MOTHER TRANSFERRED PRIOR TO DELIVERY?
☐ YES ☐ NO
If yes, enter name of facility transferred from

10 PREGNANCY HISTORY *(Complete each section)*

LIVE BIRTHS
10a NOW LIVING Number ___ None ☐
10b NOW DEAD Number ___ None ☐
10c DATE OF LAST LIVE BIRTH *(Mo., Year)*

OTHER TERMINATIONS *(Spontaneous and induced at any time after conception)*
10d *(Do not include this fetus)* Number ___ None ☐
10e DATE OF LAST OTHER TERMINATION *(Mo., Year)*

11 DATE LAST NORMAL MENSES BEGAN *(Month, Day, Year)*

12 PLURALITY - Single, Twin, Triplet, etc. *(Specify)*

13 IF NOT SINGLE BIRTH - Born First, Second, Third, etc. *(Specify)*

14a MONTH OF PREGNANCY PRENATAL CARE BEGAN - First, Second, Third, etc. *(Specify)*

14b PRENATAL VISITS - Total Number *(If none, so state)*

15a MEDICAL RISK FACTORS FOR THIS PREGNANCY *(Check all that apply)*
Anemia (Hct < 30/Hgb < 10) 01 ☐
Cardiac disease 02 ☐
Acute or chronic lung disease 03 ☐
Diabetes 04 ☐
Genital herpes 05 ☐
Hydramnios/Oligohydramnios 06 ☐
Hemoglobinopathy 07 ☐
Hypertension, chronic 08 ☐
Hypertension, pregnancy-associated 09 ☐
Eclampsia 10 ☐
Incompetent cervix 11 ☐
Previous infant 4000+ grams 12 ☐
Previous preterm or small-for-gestational-age infant 13 ☐
Renal disease 14 ☐
Rh sensitization 15 ☐
Uterine bleeding 16 ☐
None 00 ☐
Other *(Specify)* ___ 17 ☐

15b OTHER RISK FACTORS FOR THIS PREGNANCY *(Complete all items)*
Tobacco use during pregnancy Yes ☐ No ☐
Average number cigarettes per day ___
Alcohol use during pregnancy Yes ☐ No ☐
Average number of drinks per week ___
Weight gained during pregnancy ___ lbs

16 OBSTETRIC PROCEDURES *(Check all that apply)*
Amniocentesis 01 ☐
Electronic fetal monitoring 02 ☐
Induction of labor 03 ☐
Stimulation of labor 04 ☐
Tocolysis 05 ☐
Ultrasound 06 ☐
None 00 ☐
Other *(Specify)* ___ 07 ☐

17 COMPLICATIONS OF LABOR AND/OR DELIVERY *(Check all that apply)*
Febrile (> 100° F or 38° C) 01 ☐
Meconium, moderate/heavy 02 ☐
Premature rupture of membrane (> 12 hours) 03 ☐
Abruptio placenta 04 ☐
Placenta previa 05 ☐
Other excessive bleeding 06 ☐
Seizures during labor 07 ☐
Precipitate labor (< 3 hours) 08 ☐
Prolonged labor (> 20 hours) 09 ☐
Dysfunctional labor 10 ☐
Breech/Malpresentation 11 ☐
Cephalopelvic disproportion 12 ☐
Cord prolapse 13 ☐
Anesthetic complications 14 ☐
Fetal distress 15 ☐
None 00 ☐
Other *(Specify)* ___ 16 ☐

18 METHOD OF DELIVERY *(Check all that apply)*
Vaginal 01 ☐
Vaginal birth after previous C-section 02 ☐
Primary C-section 03 ☐
Repeat C-section 04 ☐
Forceps 05 ☐
Vacuum 06 ☐
Hysterectomy 07 ☐
Hysterotomy 08 ☐

19 APPARENT CONGENITAL ANOMALIES OF FETUS *(Check all that apply)*
Anencephalus 01 ☐
Spina Bifida/Meningocele 02 ☐
Hydrocephalus 03 ☐
Microcephalus 04 ☐
Other central nervous system anomalies *(Specify)* ___ 05 ☐
Heart malformations 06 ☐
Other circulatory/respiratory anomalies *(Specify)* ___ 07 ☐
Rectal atresia/stenosis 08 ☐
Tracheo-esophageal fistula/Esophageal atresia 09 ☐
Omphalocele/Gastroschisis 10 ☐
Other gastrointestinal anomalies *(Specify)* ___ 11 ☐
Malformed genitalia 12 ☐
Renal agenesis 13 ☐
Other urogenital anomalies *(Specify)* ___ 14 ☐
Cleft lip/palate 15 ☐
Polydactyly/Syndactyly/Adactyly 16 ☐
Club foot 17 ☐
Diaphragmatic hernia 18 ☐
Other musculoskeletal/integumental anomalies *(Specify)* ___ 19 ☐
Down's syndrome 20 ☐
Other chromosomal anomalies *(Specify)* ___ 21 ☐
None 00 ☐
Other *(Specify)* ___ 22 ☐

20 PART I. Fetal or maternal condition directly causing fetal death
Enter only one cause per line for a, b, and c
IMMEDIATE CAUSE
a ___ Specify Fetal or Maternal
DUE TO (OR AS A CONSEQUENCE OF):
b ___ Specify Fetal or Maternal
DUE TO (OR AS A CONSEQUENCE OF):
c ___ Specify Fetal or Maternal
Fetal and/or maternal conditions, if any, giving rise to the immediate cause(s), stating the underlying cause last

PART II. Other significant conditions of fetus or mother contributing to fetal death but not resulting in the underlying cause given in Part I

21 FETUS DIED BEFORE LABOR, DURING LABOR OR DELIVERY, UNKNOWN *(Specify)*

PLACE

22a HOSPITAL WHERE FETUS WAS DELIVERED (IF NOT HOSPITAL — GIVE ADDRESS OF PERSON COMPLETING REPORT)

22b CITY, VILLAGE, OR TOWNSHIP OF DELIVERY

22c COUNTY OF DELIVERY

23 NAME OF PERSON COMPLETING REPORT *(TYPE OR PRINT)*

24 DATE REPORT COMPLETED *(Month, Day, Year)*

25 DATE REPORT RECEIVED BY DEPARTMENT *(Month, Day, Year)*

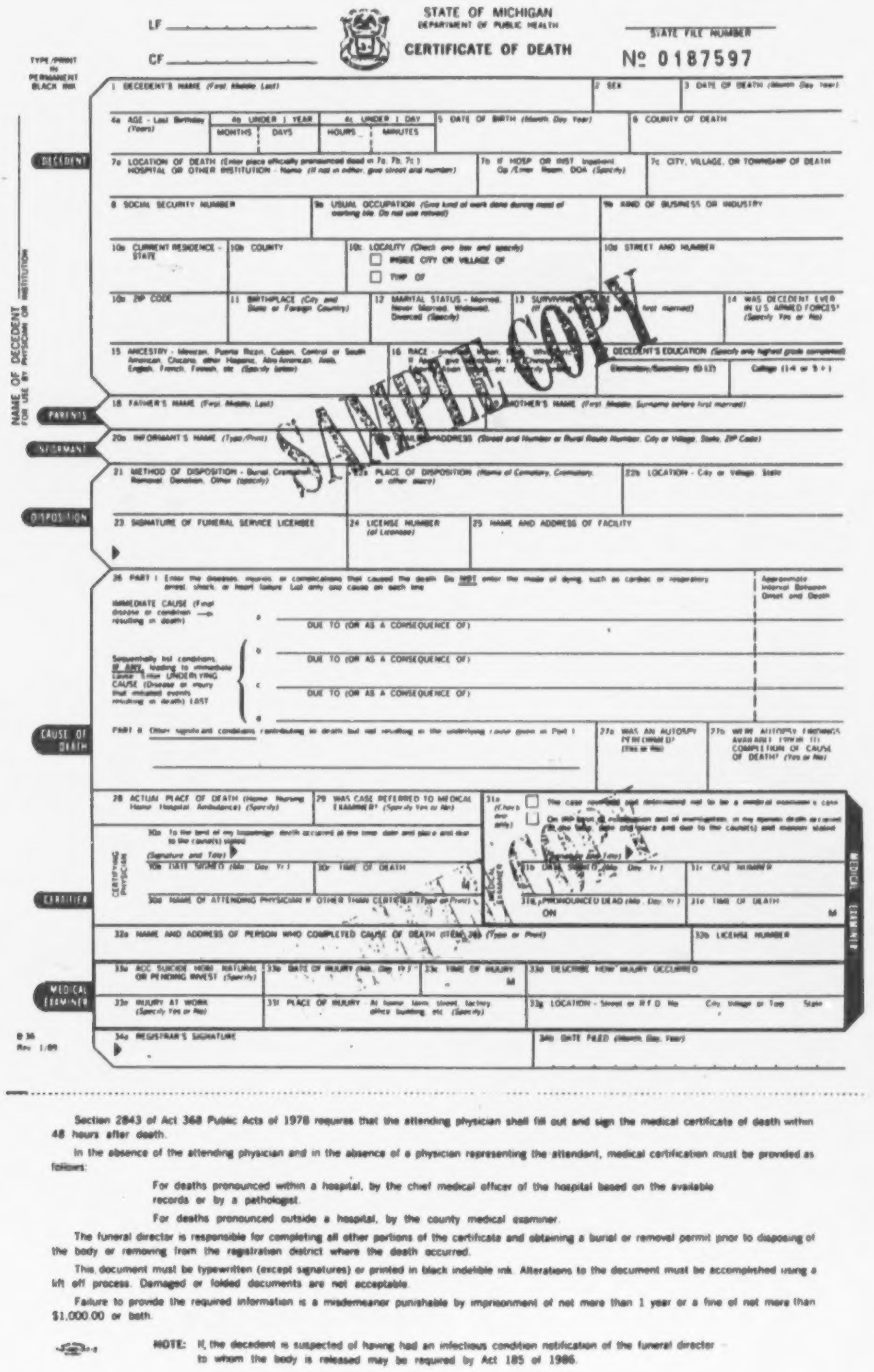
B 35 1 80
AUTHORITY
Act 368 PA 1978

FAILURE TO PROVIDE THE REQUIRED INFORMATION IS A MISDEMEANOR PUNISHABLE BY IMPRISONMENT OF NOT MORE THAN 1 YEAR OR A FINE OF NOT MORE THAN $1,000.00 OR BOTH

SAMPLE COPY

SAMPLE COPY

Figure 4.4



LF ____________

CF ____________

STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH
CERTIFICATE OF DEATH

STATE FILE NUMBER
№ 0187597

TYPE/PRINT IN PERMANENT BLACK INK

NAME OF DECEDENT
FOR USE BY PHYSICIAN OR INSTITUTION

SAMPLE COPY

DECEDENT

1 DECEDENT'S NAME (First, Middle, Last)
2 SEX
3 DATE OF DEATH (Month, Day, Year)
4a AGE - Last Birthday (Years)
4b UNDER 1 YEAR: MONTHS | DAYS
4c UNDER 1 DAY: HOURS | MINUTES
5 DATE OF BIRTH (Month, Day, Year)
6 COUNTY OF DEATH
7a LOCATION OF DEATH (Enter place officially pronounced dead in 7a, 7b, 7c.) HOSPITAL OR OTHER INSTITUTION - Name (If not in either, give street and number)
7b IF HOSP. OR INST. Inpatient, Op/Emer. Room, DOA (Specify)
7c CITY, VILLAGE, OR TOWNSHIP OF DEATH
8 SOCIAL SECURITY NUMBER
9a USUAL OCCUPATION (Give kind of work done during most of working life. Do not use retired)
9b KIND OF BUSINESS OR INDUSTRY
10a CURRENT RESIDENCE - STATE
10b COUNTY
10c LOCALITY (Check one box and specify)
☐ INSIDE CITY OR VILLAGE OF
☐ TWP OF
10d STREET AND NUMBER
10e ZIP CODE
11 BIRTHPLACE (City and State or Foreign Country)
12 MARITAL STATUS - Married, Never Married, Widowed, Divorced (Specify)
13 SURVIVING SPOUSE (If wife, give name before first married)
14 WAS DECEDENT EVER IN U.S. ARMED FORCES? (Specify Yes or No)
15 ANCESTRY - Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro-American, Arab, English, French, Finnish, etc. (Specify below)
16 RACE - American Indian, Black, White, etc. If Asian, give nationality (i.e. Chinese, Japanese, Korean, Vietnamese, etc.) (Specify)
17 DECEDENT'S EDUCATION (Specify only highest grade completed)
Elementary/Secondary (0-12) | College (1-4 or 5+)

PARENTS

18 FATHER'S NAME (First, Middle, Last)
19 MOTHER'S NAME (First, Middle, Surname before first married)

INFORMANT

20a INFORMANT'S NAME (Type/Print)
20b MAILING ADDRESS (Street and Number or Rural Route Number, City or Village, State, ZIP Code)

DISPOSITION

21 METHOD OF DISPOSITION - Burial, Cremation, Removal, Donation, Other (specify)
22a PLACE OF DISPOSITION (Name of Cemetery, Crematory, or other place)
22b LOCATION - City or Village, State
23 SIGNATURE OF FUNERAL SERVICE LICENSEE ▶
24 LICENSE NUMBER (of Licensee)
25 NAME AND ADDRESS OF FACILITY

CAUSE OF DEATH

26 PART I Enter the diseases, injuries, or complications that caused the death. Do NOT enter the mode of dying, such as cardiac or respiratory arrest, shock, or heart failure. List only one cause on each line.

Approximate Interval Between Onset and Death

IMMEDIATE CAUSE (Final disease or condition resulting in death) → a ____________
DUE TO (OR AS A CONSEQUENCE OF)

Sequentially list conditions, IF ANY, leading to immediate cause. Enter UNDERLYING CAUSE (Disease or injury that initiated events resulting in death) LAST
b ____________
DUE TO (OR AS A CONSEQUENCE OF)
c ____________
DUE TO (OR AS A CONSEQUENCE OF)
d ____________

PART II Other significant conditions contributing to death but not resulting in the underlying cause given in Part I
27a WAS AN AUTOPSY PERFORMED? (Yes or No)
27b WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? (Yes or No)

CERTIFIER

28 ACTUAL PLACE OF DEATH (Home, Nursing Home, Hospital, Ambulance) (Specify)
29 WAS CASE REFERRED TO MEDICAL EXAMINER? (Specify Yes or No)

CERTIFYING PHYSICIAN

30a To the best of my knowledge death occurred at the time, date and place and due to the cause(s) stated.
(Signature and Title) ▶
30b DATE SIGNED (Mo., Day, Yr.)
30c TIME OF DEATH M
30d NAME OF ATTENDING PHYSICIAN IF OTHER THAN CERTIFIER (Type or Print)

MEDICAL EXAMINER

31a (Check one only)
☐ The case reviewed and determined not to be a medical examiner's case
☐ On the basis of examination and of investigation, in my opinion death occurred at the time, date and place and due to the cause(s) and manner stated
(Signature and Title) ▶
31b DATE SIGNED (Mo., Day, Yr.)
31c CASE NUMBER
31d PRONOUNCED DEAD (Mo., Day, Yr.) ON
31e TIME OF DEATH M

32a NAME AND ADDRESS OF PERSON WHO COMPLETED CAUSE OF DEATH (ITEM 26) (Type or Print)
32b LICENSE NUMBER

MEDICAL EXAMINER

33a ACC., SUICIDE, HOM., NATURAL OR PENDING INVEST. (Specify)
33b DATE OF INJURY (Mo., Day, Yr.)
33c TIME OF INJURY M
33d DESCRIBE HOW INJURY OCCURRED
33e INJURY AT WORK (Specify Yes or No)
33f PLACE OF INJURY - At home, farm, street, factory, office building, etc. (Specify)
33g LOCATION - Street or R.F.D. No., City, Village or Twp., State

34a REGISTRAR'S SIGNATURE ▶
34b DATE FILED (Month, Day, Year)

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Section 2843 of Act 368 Public Acts of 1978 requires that the attending physician shall fill out and sign the medical certificate of death within 48 hours after death.

In the absence of the attending physician and in the absence of a physician representing the attendant, medical certification must be provided as follows:

For deaths pronounced within a hospital, by the chief medical officer of the hospital based on the available records or by a pathologist.

For deaths pronounced outside a hospital, by the county medical examiner.

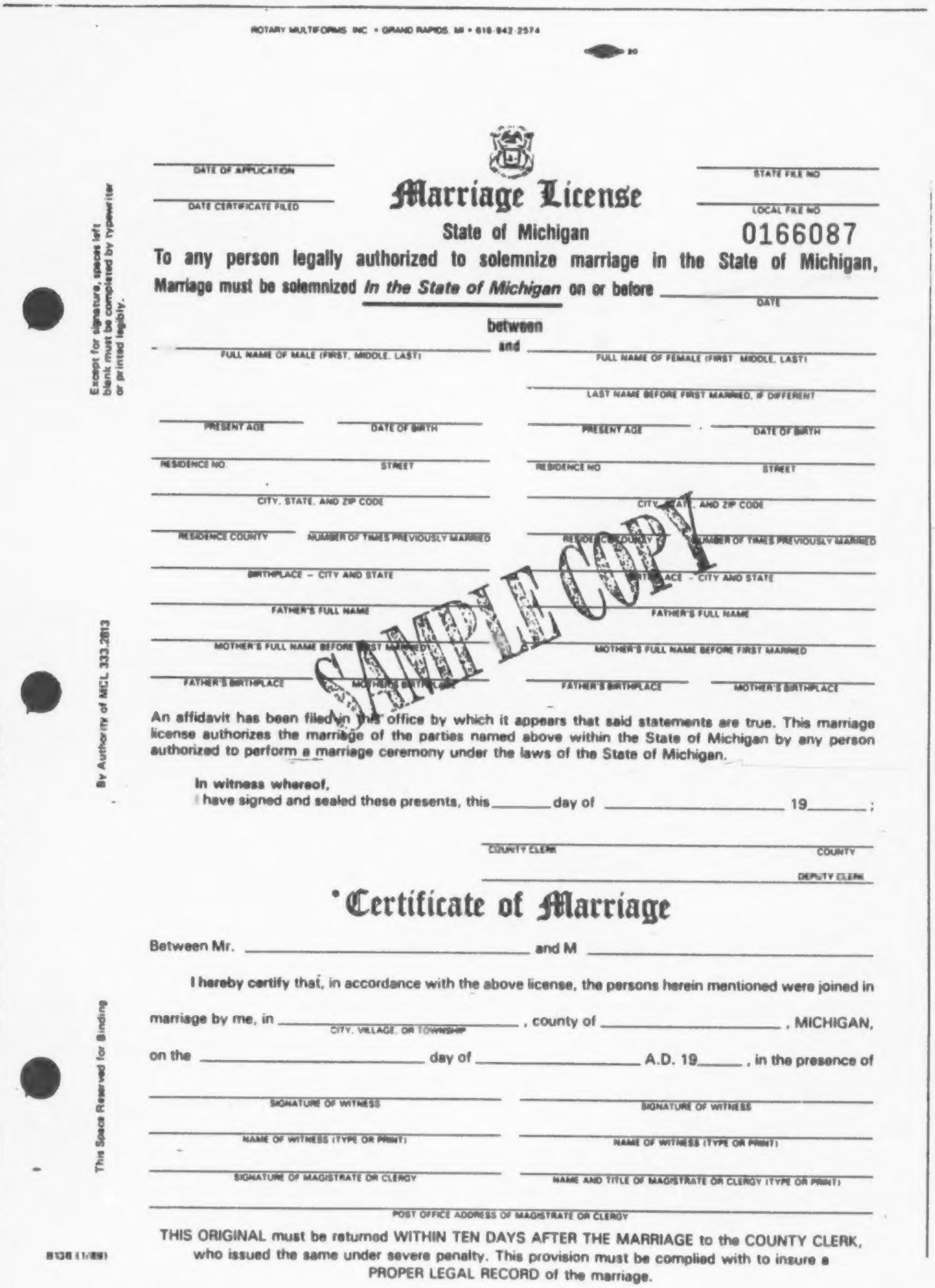
The funeral director is responsible for completing all other portions of the certificate and obtaining a burial or removal permit prior to disposing of the body or removing from the registration district where the death occurred.

This document must be typewritten (except signatures) or printed in black indelible ink. Alterations to the document must be accomplished using a lift off process. Damaged or folded documents are not acceptable.

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than $1,000.00 or both.

NOTE: If the decedent is suspected of having had an infectious condition notification of the funeral director to whom the body is released may be required by Act 185 of 1986.

Figure 4.5



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Except for signature, spaces left blank must be completed by typewriter or printed legibly.

DATE OF APPLICATION

DATE CERTIFICATE FILED

STATE FILE NO

LOCAL FILE NO

0166087

Marriage License

State of Michigan

To any person legally authorized to solemnize marriage in the State of Michigan,

Marriage must be solemnized *In the State of Michigan* on or before ______

DATE

between

FULL NAME OF MALE (FIRST, MIDDLE, LAST) and FULL NAME OF FEMALE (FIRST, MIDDLE, LAST)

	LAST NAME BEFORE FIRST MARRIED, IF DIFFERENT
PRESENT AGE / DATE OF BIRTH	PRESENT AGE / DATE OF BIRTH
RESIDENCE NO. / STREET	RESIDENCE NO / STREET
CITY, STATE, AND ZIP CODE	CITY, STATE, AND ZIP CODE
RESIDENCE COUNTY / NUMBER OF TIMES PREVIOUSLY MARRIED	RESIDENCE COUNTY / NUMBER OF TIMES PREVIOUSLY MARRIED
BIRTHPLACE – CITY AND STATE	BIRTHPLACE – CITY AND STATE
FATHER'S FULL NAME	FATHER'S FULL NAME
MOTHER'S FULL NAME BEFORE FIRST MARRIED	MOTHER'S FULL NAME BEFORE FIRST MARRIED
FATHER'S BIRTHPLACE / MOTHER'S BIRTHPLACE	FATHER'S BIRTHPLACE / MOTHER'S BIRTHPLACE

SAMPLE COPY

By Authority of MCL 333.2813

An affidavit has been filed in this office by which it appears that said statements are true. This marriage license authorizes the marriage of the parties named above within the State of Michigan by any person authorized to perform a marriage ceremony under the laws of the State of Michigan.

In witness whereof,

I have signed and sealed these presents, this ______ day of ______ 19______;

COUNTY CLERK ______ COUNTY

DEPUTY CLERK

Certificate of Marriage

Between Mr. ______ and M ______

I hereby certify that, in accordance with the above license, the persons herein mentioned were joined in marriage by me, in ______ (CITY, VILLAGE, OR TOWNSHIP), county of ______, MICHIGAN, on the ______ day of ______ A.D. 19______, in the presence of

SIGNATURE OF WITNESS

SIGNATURE OF WITNESS

NAME OF WITNESS (TYPE OR PRINT)

NAME OF WITNESS (TYPE OR PRINT)

SIGNATURE OF MAGISTRATE OR CLERGY

NAME AND TITLE OF MAGISTRATE OR CLERGY (TYPE OR PRINT)

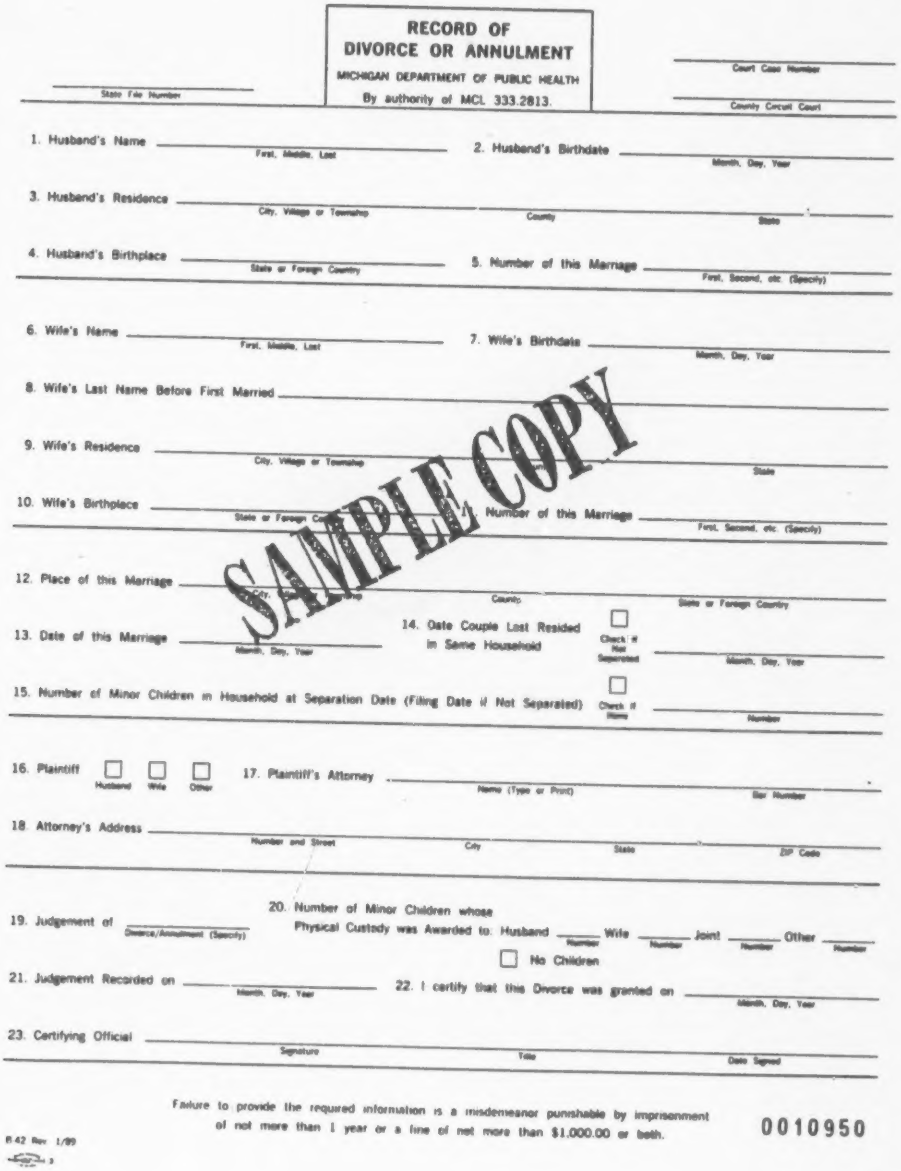
POST OFFICE ADDRESS OF MAGISTRATE OR CLERGY

This Space Reserved for Binding

8136 (1/89)

THIS ORIGINAL must be returned WITHIN TEN DAYS AFTER THE MARRIAGE to the COUNTY CLERK, who issued the same under severe penalty. This provision must be complied with to insure a PROPER LEGAL RECORD of the marriage.

Figure 4.6



RECORD OF
DIVORCE OR ANNULMENT
MICHIGAN DEPARTMENT OF PUBLIC HEALTH
By authority of MCL 333.2813.

State File Number

Court Case Number

County Circuit Court

1. Husband's Name ______ First, Middle, Last
2. Husband's Birthdate ______ Month, Day, Year
3. Husband's Residence ______ City, Village or Township ______ County ______ State
4. Husband's Birthplace ______ State or Foreign Country
5. Number of this Marriage ______ First, Second, etc. (Specify)

6. Wife's Name ______ First, Middle, Last
7. Wife's Birthdate ______ Month, Day, Year
8. Wife's Last Name Before First Married ______
9. Wife's Residence ______ City, Village or Township ______ State
10. Wife's Birthplace ______ State or Foreign Co
11. Number of this Marriage ______ First, Second, etc. (Specify)

SAMPLE COPY

12. Place of this Marriage ______ City, ______ County ______ State or Foreign Country
13. Date of this Marriage ______ Month, Day, Year
14. Date Couple Last Resided in Same Household ☐ Check if Not Separated ______ Month, Day, Year
15. Number of Minor Children in Household at Separation Date (Filing Date if Not Separated) ☐ Check if None ______ Number

16. Plaintiff ☐ Husband ☐ Wife ☐ Other
17. Plaintiff's Attorney ______ Name (Type or Print) ______ Bar Number
18. Attorney's Address ______ Number and Street ______ City ______ State ______ ZIP Code

19. Judgement of ______ Divorce/Annulment (Specify)
20. Number of Minor Children whose Physical Custody was Awarded to: Husband ______ Number Wife ______ Number Joint ______ Number Other ______ Number
☐ No Children
21. Judgement Recorded on ______ Month, Day, Year
22. I certify that this Divorce was granted on ______ Month, Day, Year
23. Certifying Official ______ Signature ______ Title ______ Date Signed

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than $1,000.00 or both.

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